APPEARANCES OF COUNSEL:

(P.M. SESSION)

CHRIS COLLINS, ESQ.

JONATHAN E. BEHAR, ESQ.

CRAIG GUSTAFSON, ESQ.

MARTHA S. WARREN, ESQ.

JOHN P. REILLY, ESQ.

WILLIAM E. LATHAM, II, ESQ.

ALSO PRESENT:

RALEIGH ELLISON, VIDEOTAPE OPERATOR

REPORTED BY:

NANCY L. HOLLOWAY, COURT REPORTER AND
NOTARY PUBLIC

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(The deposition of CHRISTOPHER COGGINS, Ph.D. was reconvened after the luncheon recess.)

CHRISTOPHER COGGINS, Ph.D.,

having been previously duly sworn, testified further as follows:

VIDEOTAPE OPERATOR: We're back on the record at 1:03.

EXAMINATION (CONTINUING)

BY MR. COLLINS:

Q. Doctor, do you know a gentleman from Philip Morris by the name of William Dunn?

A. No.

Q. Doctor, I'm going to show you a Philip Morris document from 1977.

Have you ever seen this document before?

A. No, I haven't.

Q. Do you know who Carolyn Levy is?

A. Carolyn --

Q. Levy. Levy.

A. No.

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Q. If you look about midway through that paragraph, it starts with, "If, however."
A. Yes.
Q. "If, however, the results with nicotine are similar to those gotten with morphine and caffeine, we will want to bury it."
A. Uh-huh.
Q. Accordingly, there are only two copies of this memo, the one attached and the original I have.
A. Uh-huh.
Q. Doctor, can you tell me if at any time while you were at R.J. Reynolds or currently at Lorillard if any of your research -- sorry -- if at any time it was conveyed to you, if you got negative results from your research, to bury that information?
MR. GUSTAFSON: Object to the form.
THE WITNESS: No, I've never been asked to bury information whilst at Reynolds or at Lorillard.
BY MR. COLLINS:
Q. Doctor, have you ever been asked to stop doing research when the results of that research started to become negative results?

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MR. GUSTAFSON: Object to the form.

THE WITNESS: Again, I'm not sure about "negative"; but I've never been asked to stop doing research.

BY MR. COLLINS:

Q. Negative in the sense that your research was showing that, in this case, inhalation was causing tumors in mice.

A. No. I've never been so asked, no.

Q. Thank you.

MR. COLLINS: Please introduce that.

(Plaintiffs' Exhibit No. 16 was marked for identification and is annexed hereto.)

BY MR. COLLINS:

Q. Do you know an Edward Vassallo, V-A-S-S-A-L-L-O?

A. No, I don't.

Q. While you were working on Premier, Doctor, at Reynolds, was it ever conveyed to you by anybody that, with respect to Premier, the purpose of Premier was to devise and market profitable new product away from the conventional cigarette, which will provide those same satisfactions with no significant hazard to the

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health of the user?

MR. GUSTAFSON: Objection to form. The question is vague and ambiguous.

THE WITNESS: No, I was never asked any such question, no.

BY MR. COLLINS:

Q. Do you have any idea what the purpose RJR had for developing Premier?

A. There were several goals that were written down in the monograph I described earlier this morning. They were to -- I can't remember them precisely. But they were to -- attempts to simplify the smoke composition, simplify the biological results as a result of only heating the tobacco rather than burn it. The ultimate aim, of course, being that they could sell these cigarettes to smokers.

Q. Doctor, if -- as you have stated, you personally have not come across in your research any results that would show biological activity -- sorry -- negative biological activity, correct?

MR. GUSTAFSON: Objection to form. I don't understand the question. It's completely out of context.

BY MR. COLLINS:

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Q. In reference to your research of smoke inhalation --

A. Yes.

Q. -- have you ever come across any research which showed negative biological activity? And by "negative," I mean, results in cancer, emphysema, any health effect that is alleged in this litigation?

MR. GUSTAFSON: Objection to form.

THE WITNESS: Let me see if I've got the question. Are you asking me if I have seen smoke inhalation studies in animals that have produced tumors? Is that your question?

BY MR. COLLINS:

Q. That you have done.

A. Oh, that I have done?

Q. No. Just, what you have done.

A. No, I have never seen such a response.

Q. And your opinion is smoke inhalation in mice or rats does not produce lung tumors?

A. Yes, that's the opinion in my review paper.

Q. If that is so, then why would Lorillard or Reynolds want to produce a cigarette that does not burn --

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MR. GUSTAFSON: Objection. Requires speculation as to what "Reynolds," quote, wanted to do.
BY MR. COLLINS:
Q. -- and has lowered biological activity?
MR. GUSTAFSON: Same objection.
THE WITNESS: I'm having difficulty connecting that with the previous question. Is it a separate --
BY MR. COLLINS:
Q. The previous question is: You found no research that you have done --
A. Yes.
Q. -- that produced lung tumors?
A. That's right.
Q. Did you find -- did you have any research that you have done that produced biological activity?
MR. GUSTAFSON: Objection to form. It's vague and ambiguous.
THE WITNESS: I think you're meaning, first of all, in this cigarette that burns tobacco --
BY MR. COLLINS:
Q. Yes, sir.

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A. -- did I find changes in the respiratory tract, other than lung tumors?

BY MR. COLLINS:

Q. By "biological activity," I mean, a negative health effect, cancer, emphysema --

MR. GUSTAFSON: Objection to the form.

BY MR. COLLINS:

Q. -- chronic obstructive pulmonary disease, any of those things.

A. First of all, in none of the inhalation studies that I have performed have I seen the things you're calling negative, which would be lung cancer emphysema, chronic obstructive pulmonary disease.

But I'm having difficulty linking up with your next question concerning Premier. I'm sorry.

BY MR. COLLINS:

Q. Well, Premier is a cigarette that is heated rather than burned?

A. The tobacco is heated rather than burned, yes.

Q. And one of the health allegations that is made is that a burning cigarette produces biological chemicals that are biologically active

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in the human body, thus resulting in lung cancer or emphysema.

Now, is the purpose of Premier to eliminate that biological activity that is found in the combustible --

A. No.

Q. -- the burned cigarette?

A. I don't --

MR. GUSTAFSON: Objection to the form.

MR. LATHAM: Asked and answered, too.

THE WITNESS: I'm sorry. I think the primary aims were to simplify the smoke chemistry and to simplify the biological responses by heating the tobacco rather than by burning it.

BY MR. COLLINS:

Q. Okay. What biological responses are you referring to?

A. In the Kentucky reference cigarette? Fine. So you'd like to know the responses that are seen in the Kentucky reference cigarette as a result -- in inhalation studies?

Q. No. I want to know, as you've indicated, the reduced potential for biological activity as measured by toxicological assays.

MR. GUSTAFSON: Objection. I don't know what

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you're reading from, if that's a document that -- the preface of your question was, as you've stated. And I don't know what document you're reading from, Chris.

I'm going to move to strike your testimony, because there's just no foundation for the fact that that's Dr. Coggins' testimony.

BY MR. COLLINS:

Q. Doctor, it's true that the development of Premier was spurred by a technological impasse encountered by the cigarette industry in its attempt to reduce the amount of tar in cigarettes; true?

MR. GUSTAFSON: Object to the form.

THE WITNESS: No. I think that, as we mentioned earlier, that tar yields in the last 40 years have declined, were declining when Premier was produced, and have continued to decline since then.

BY MR. COLLINS:

Q. I'm just speaking about the development of Premier itself.

A. Okay. The --

Q. Was one of the goals of producing Premier an attempt to reduce the amount of tar?

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A. When I said the aim was to simplify the smoke chemistry, that's really what I meant, in that there's a problem mere in the nomenclature that Premier doesn't produce any tar.

The way that tar is measured on these glass fiber pads when the smoke is drawn through them, tar is what's left after you measured nicotine and water on the pad. We you subtract those, because you can assay those.

The material that's left on the pad is called tar. And we don't know what it is. It's a mixture of a large number of compounds.

When you burn Premier and/or heat Premier, draw that material through the pad, when you subtract nicotine and water and glycerol, which is the main component of the smoke, there's nothing left. So there is no tar as it is conventionally defined.

Q. So then the Premier product would reduce the amount of tar as opposed to a conventional cigarette?

A. Using the standard definition of "eliminated."

Q. Would it also reduce the potential biological activity?

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MR. GUSTAFSON: Objection to form. It's vague and ambiguous.

THE WITNESS: Yes. That was the experiment that I performed, was to see whether this simplified chemistry produced as a result of heating tobacco produced simplified biological responses. And that's what I did, yes.

BY MR. COLLINS:

Q. And it would reduce such things as the squamous you were talking about earlier?

A. Yes. The range of responses that were produced by the Kentucky reference tobacco burning cigarette are the same that have been published by many other people, those standard set of responses, including the one I describe.

However, when it came to the Premier cigarette, or the Premier prototype, where the tobacco is only heated, most of those changes were absent.

The pathologist, the guy that looked at the tissues through the microscope, in most cases couldn't tell the difference between the Premier animals -- if you remember, I described the groups -- and the air animals, with a couple of minor exceptions. He did see small traces of

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the metaplasia I described earlier.

Q. Do you have any understanding as to why Premier is no longer on the market?

MR. LATHAM: Object to the form of the question.

THE WITNESS: I have no knowledge.

I'd think it wasn't acceptable to smokers.

BY MR. COLLINS:

Q. Do you have an understanding why smokers did not accept the Premier product?

A. I have no knowledge. It was a very, very different product.

Q. Doctor, have you ever heard of the "gentlemen's agreement"?

A. I've heard this phrase. I'm not sure what it refers to. I certainly have never read it.

Q. Doctor, I'm going to show you an R.J. Reynolds document (indicating). It's dated December 9th, 1991. It's from an F.G. Colby.

Do you know Mr. Colby?

A. Yes, I know Frank Colby.

Q. And how do you know him?

A. Frank, I believe, or was -- excuse

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me -- Frank was a consultant to Reynolds. I met him -- I'd meet him sporadically at various scientific meetings that I attend.

Q. Consultant in what capacity?

A. I think general smoking health; but I'm not really sure. And this has been since I left Reynolds. I have no idea what his current activities are.

Q. Do you know Jay Giles?

A. I knew Jay Giles. And he was the head of the analytical chemistry group at R.J. Reynolds for a short while when I was there.

Q. And what does the analytical -- I'm sorry?

A. He was head of the analytical chemistry group. And their job was to analyze tobacco, analyze cigarettes for a variety of different materials in the smoke.

Q. The very first paragraph, "Information was obtained that Philip Morris-U.S.A. does not live up to the alleged 'gentlemen's agreement' of not having animal laboratory facilities on their premises in this country."

Do you see that?

A. Yes.

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Q. Do you know currently if R.J. Reynolds has animal laboratory facilities in this country?
A. They had when I left two years ago. I don't know that they do today.
Q. Does Lorillard have such facilities?
A. We do not have such facilities on our premises.
MR. GUSTAFSON: I want to make a general objection to Counsel's habit of just reading documents into is record. There's no foundation being laid for these documents. And I move to strike Counsel's testimony
(Plaintiffs' Exhibit No. 17 was marked for identification and is annexed hereto.)
BY MR. COLLINS:
Q. Doctor, I'm going to show you another R.J. Reynolds document.
Have you ever seen this document before?
A. No, I have not.
Q. Do you know a Mr. Rodgman?
A. Yes, I do.
Q. And how do you know him?
A. He worked at R.J. Reynolds when I

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arrived. And he also retired shortly after I
arrived. I still see him at scientific meetings.
Q. And you've already testified that
you know Mr. Colby?
A. Yes.
Q. Have you ever had an occasion to
discuss with Mr. Rodgman and Mr. Colby anything
regarding the "gentlemen's agreement"?
A. No. As I said to you, I don't know
anything about the gentlemen's agreement, other
than those two words that have been put together.
Q. You've heard that?
A. I've heard that phrase.
Q. And do you have any idea what that
means, what that's in reference to?
A. I'm not sure what it is, no.
Q. I know this is kind of a lengthy
document. And there's only one part that I want
you to look at, if you would oblige me.
If you look down at the bottom,
there's a Bates range.
A. Yes.
Q. RJR.
A. Yes.
Q. If you will go to -- it's about --

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towards the back RJR 0905 --
A. Yes.
Q. - 17.
A. RJR 090517.
Q. Yes, sir. And at the top it says, Smoking And Health-related Research Conducted By Philip Morris."
A. Yes.
Q. If you look at the middle of the page --
A. Yes.
Q. -- it states, "Throughout the domestic industry," two, quote, "'gentlemen's' agreements were operative in the early days: Any company discovering an innovation permitting the fabrication of an essentially 'safe' cigarette would share the discovery with others in the industry."
Do you see that?
A. Yes.
Q. Are you aware of any policy, either while you were at R.J. Reynolds or Lorillard, where either one of those companies would share their research with one of the competing companies in the tobacco industry?

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MR. GUSTAFSON: Object to the form. And I move to strike the testimony of Counsel. There's no founda ion for t..is document whatsoever.

THE WITNESS: I was involved in one experiment to share research, but it had nothing to do with the concept raised here.

BY MR. COLLINS:

Q. Are you aware at any time while working at either R.J. Reynolds or Lorillard where either one of those companies would share their proprietary research or R&D development with competitors within the tobacco industry?

MR. GUSTAFSON: Object to form.

THE WITNESS: No, I'm not aware or any such agreement.

BY MR. COLLINS:

Q. Do you believe that it would be the sound business to share proprietary research and developments with competitors within the same business?

MR. GUSTAFSON: Objection. Requires speculation. The question is completely without any context and adequate specificity.

THE WITNESS: It would seem the exact opposite of what proprietary means to me.

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BY MR. COLLINS:

Q. If you look down at the next line, it states, "No domestic company would use intact animals in-house in biomedical research."

What is an "intact" animal?

A. It's a living animal as opposed to cells or tissues or parts of the animal, to put it crudely, that are used in, for example, tissue culture.

Q. And do you have an understanding of what "biomedical research" is?

A. I think largely it's what we've been talking about today, yes.

Q. Would there be any reason why a company that has been -- that has been claimed, who produces a product that causes health and disease -- health problems -- I'm sorry -- would not use intact animals to find out whether that product does in fact cause any alleged problems?

MR. GUSTAFSON: Object to the form.

THE WITNESS: I think if you wanted to perform investigative research on the biomedical nature of materials such as cigarette smoking, you would use animals, as I described earlier today, yes.

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BY MR. COLLINS:

Q. Thank you.

MR. COLLINS: Would you introduce that, please.

(Plaintiffs' Exhibit No. 18 was marked for identification and is annexed hereto.)

BY MR. COLLINS:

Q. Doctor, if you would, assume for me that there was in fact a gentlemen's agreement, as described between all the tobacco companies, that no one would do in-house biological testing on intact animals.

Do you understand that assumption?

A. What data and what time are we -- today?

Q. Well, today. I'll go with today.

A. (Nods head affirmatively.)

Q. Do you think it's significant that the prohibitive research would address the causal link between smoking and disease?

MR. GUSTAFSON: I'm going to object to form. The hypothetical assumes facts which are contradicted by the testimony here today; otherwise object to the form of the question.

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THE WITNESS: I'm sorry. I don't -- the -- did you say the prohibitive? Is there a word missing there? The prohibitive, did I miss something?

BY MR. COLLINS:

Q. You're assuming that there is a gentlemen's agreement amongst the companies not to do biomedical research --

A. Today.

Q. -- today on intact animals.

A. Yes.

Q. Do you think the fact that there is that agreement, assuming that there is, do you think that it's significant that that prohibited research would have addressed the causal link between smoking and health?

MR. GUSTAFSON: Objection to form.

THE WITNESS: Would it have prohibited the development of the link? Was that the question?

BY MR. COLLINS:

Q. That it would address the causal link.

MR. GUSTAFSON: Object to the form of the question. I think it's vague and ambiguous and unintelligible.

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THE WITNESS: The link, as I understand it, is an epidemiological link. And we're now talking about the ban on animal studies, which I think is the only way you can build on the epidemiological theory that has been put forward. The only way, in my mind, that you can move from the epidemiological theory to actual data would be to use experimental animals.

BY MR. COLLINS:

Q. And do you think that's a significant prohibition, that that research was not permitted --

MR. GUSTAFSON: Object to the form.

BY MR. COLLINS:

Q. -- if the gentlemen's agreement in fact is true?

MR. GUSTAFSON: Again, I object to the form. It assumes facts which are completely contradicted by the testimony of this witness.

THE WITNESS: I mean, assuming that they could somehow or other prevent -- not do this work, you'd still have the epidemiological link, which would still be there. You'd still have the elevated odds ratios and all of the other statements that the Surgeon General is making.

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I'm --

BY MR. COLLINS:

Q. Right. But the tobacco industry's position is that the epidemiological link is insufficient because there is no proven causality --

A. Right.

Q. -- correct?

A. (Nods head affirmatively.)

Q. My point is: If I understand your testimony, you cannot make that jump from the epidemiological to the causality without doing intact animal studies.

A. I see. I think before you'd be able to get to causality, you would need, certainly, the experimental animals, and you would certainly need other things to get to that final scientific use of the word "causal."

Q. In your opinion, just your lay opinion, do you think it was improper for the tobacco companies to publicly deny causation without doing the causality biomedical studies?

MR. GUSTAFSON: Object to the form of the question.

THE WITNESS: I -- these moral questions are

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obviously dependent on the morals of the person you're asking.

But I thi..k you'd still have the epidemiological links that have got these strong odds ratios.

You're now saying that you would not have the animal studies because of the assumption you asked me to make. Then there was a third part. And I missed that.

BY MR. COLLINS:

Q. Well, I guess my question is this, Doctor: Exclude the epidemiological studies, okay. Tobacco companies are saying, look it, there is no proof, because it has not been shown smoking causes these diseases, causalities; that's the link that's missing. Do you agree with me?

MR. GUSTAFSON: I'm going to object to the question. You're testifying, Counsel, as to what tobacco companies have said. And there's no testimony in this record about what tobacco companies have or have not said, so I'm objecting to your -- the preface of your question. And I'm going to move to strike it.

BY MR. COLLINS:

Q. Doctor, have you ever heard any public

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statement made by any tobacco company that smoking does not cause lung cancer?

A. I don't think so. I think today we would use the phrase "risk factor," that there are these associated risks of smoking.

Q. Okay. I'm not asking about "associated risks." I'm asking about causality. Have you ever heard -- and I'm not talking about "today" -- ever in your lifetime the tobacco -- any tobacco company ever saying that smoking does not cause lung cancer?

A. I have not physically heard, but I've seen texts where scientists or people have been saying the very statement you said, but it's been many, many years ago.

Q. Take that point. Now, if you accept that as an assumption, there is a gentlemen's agreement amongst these tobacco companies, excluding the epidemiological evidence, if they're going to say there is no lung cancer proven, do you think it's important that they should be doing those studies in-house to try to either make that link or diffuse that link?

MR. GUSTAFSON: Object to the form of the question.

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THE WITNESS: So you're asking me here to ignore the epidemiology, to say that a scientist has said that there is -- cigarette smoking does not cause lung cancer, should they or should they not be doing experiments? Is that the question?

BY MR. COLLINS:

Q. Yes, sir.

A. Okay.

MR. GUSTAFSON: Same objection.

THE WITNESS: It may well be that these companies should perhaps contract this work out or band together and form a consortium that could do this work, and it may not be that the individual companies should undertake this; but it's very difficult for me to stand back and say that those epidemiology studies aren't there. They are there, and they do show the increased risk.

BY MR. COLLINS:

Q. Do you rely upon any of those epidemiological studies in any of the research that you do?

MR. GUSTAFSON: Objection to form. It's completely without context.

THE WITNESS: I'm aware of the various epidemiological studies that have been done

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between mainstream smoke and a number of diseases.

My work, until fairly recently, has not involved work based on epidemiology. But I'm, in general, aware of those papers that have got these links, yes.

BY MR. COLLINS:

Q. Doctor, do you recall our discussion prior to lunch regarding the Surgeon General?

A. Yes.

Q. In 1964, the Surgeon General published a report regarding smoking and the health effects of smoking.

A. Yes.

Q. Have you ever read that document?

A. Yes, I have.

Q. Do you agree with the Surgeon General's findings?

MR. GUSTAFSON: Objection. The question is vague and ambiguous as to what specific findings you're addressing in your question.

THE WITNESS: The '64 report is an inch thick, a half an inch thick. There's a lot of different things in there. I don't think I'd agree with everything. I haven't read it recently

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either.

BY MR. COLLINS:

Q. Do you agree that the 1964 Surgeon General's Report established smoking causes cancer and other diseases?

MR. GUSTAFSON: Objection to form.

THE WITNESS: I can't remember whether that conclusion was made in the '64 report.

But as we talked earlier, these Surgeon General reports have two parts, that they take the scientific data and then move to a public health position. And maybe the point you're making there is the Public Health position. I'm not sure.

BY MR. COLLINS:

Q. I'm just asking whether smoking causes disease. And according to the Surgeon General, smoking does cause cancer and other diseases; and he published that in 1964.

Now I want to know from you whether you agree with that or not?

MR. GUSTAFSON: Objection to form.

THE WITNESS: No. I think since 1964 we have a much better understanding of the multifactorial nature of such diseases as lung cancer and

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cardiovascular diseases.

BY MR. COLLINS:

Q. So your answer is "no"?

MR. GUSTAFSON: Objection. Mischaracterizes testimony.

THE WITNESS: My answer is "no" with a backup as to why.

BY MR. COLLINS:

Q. Now, correct me if I'm wrong, but I believe you stated that you believe the Surgeon General is a reliable medical source?

MR. GUSTAFSON: Objection. Mischaracterizes his testimony.

THE WITNESS: No. I just said that you could -- a lot of underlying scientific data involves -- excuse me -- enclosed in many of the scientific reports from the Surgeon General are very useful. But they are usually not complete; there's usually some papers missing. And that's as far as I can go. I can't judge the second half of the reports, the public health.

BY MR. COLLINS:

Q. That's from your perspective, that there are reports that the Surgeon General didn't rely upon when he came to his conclusion, that you

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would have possibly relied upon?

A. I'm not talking of every single one. I'm -- the one that I'm most acquainted with is the 1986 one. And I know that there are several papers just not in there that should be in there.

Q. Now, Doctor, if the Surgeon General of this country says smoking causes disease, do you think the general public should rely upon that?

MR. GUSTAFSON: Objection. Requires speculation.

THE WITNESS: I don't know what the public should and should not do. The Surgeon General has said that, and --

BY MR. COLLINS:

Q. Do you think it's reasonable for the general public to rely upon what the Surgeon General in this country says?

MR. GUSTAFSON: Objection to form.

THE WITNESS: I suppose his position, is to make public pronouncements on public health, and so...

BY MR. COLLINS:

Q. Do you think it's reasonable for the general public to rely upon the Surgeon General of this country?

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

MR. GUSTAFSON: Objection to form. Requires speculation.

THE WITNESS: They can simply hear his results. I don't think they have to rely -- I think they can make their own minds up perhaps.

BY MR. COLLINS:

Q. Do you think it's reasonable, though, if they do reply upon it?

MR. GUSTAFSON: Objection. This is about the fourth time it's been asked and answered.

THE WITNESS: People can rely on it. They don't have to.

BY MR. COLLINS:

Q. Okay. I'm not asking whether they can or they can't. I'm asking you: Is it reasonable, sir?

MR. GUSTAFSON: Objection to form. It requires speculation. It's been asked and answered several times now.

THE WITNESS: I'm just having difficulty with "reasonable." What would be unreasonable? It's one response that people can do. It's not unreasonable.

BY MR. COLLINS:

Q. I'm going to show you a Tobacco

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Institute document. Can I see that?
A. Sorry.
Q. A Tobacco Institute document?
A. Yes.
Q. It's entitled "Facts About The Smoking Controversy," right on the front page.
And under Point 4 it says, "Has the Surgeon General's Report established that smoking causes cancer and other diseases?"
A. Uh-huh.
Q. Answer: "No, the report of the Advisory Committee to the Surgeon General in 1964 failed to establish a cause-and-effect relationship between cigarette smoking and lung cancer."
Do you see that?
A. Yes, I do.
Q. Do you agree with that statement made by the Tobacco Institute?
A. I'm not quite sure what year this was written. But in general, I think that -- in general, I would agree with this statement, that there is not a cause-and-effect relationship, that it's a statistical correlation between smoking and disease. That's not cause and effect.

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Q. Doctor, to the extent that the Tobacco Institute made this statement, and they made it to the public in the past, do you believe that smokers have a right to rely upon this information?

MR. GUSTAFSON: Objection. Requires speculation.

THE WITNESS: I don't know whether the public has a right or they don't, but this is the opinions of the TI, and I presume it was based on some scientific estimate. I tend to agree with what they say here.

BY MR. COLLINS:

Q. Do you think it would be reasonable for the public to rely upon the Tobacco Institute's statement?

MR. GUSTAFSON: Objection to the form.

THE WITNESS: I think the public could rely on this; they could rely on the Surgeon General; they could do a bit of both. They could make their own minds up.

MR. COLLINS: Thank you.

Can you mark that please.

(Plaintiffs' Exhibit No. 19 was marked for identification and is

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

annexed hereto.)

BY MR. COLLINS:

Q. Doctor, have you ever heard of the Frank statement to cigarette smokers?

A. Like previous statements, I've heard of it; I haven't read it; I'm not sure what it means.

BY MR. COLLINS:

Q. Well, I'll provide you a copy of it, and I'll ask you to read it.

A. Okay. I've read it.

Q. If you'll take a look at the bottom, one of the companies that signed on to this was Lorillard --

A. Yes.

Q. -- do you see that?

A. I do.

MR. GUSTAFSON: The document says P. Lorillard Company, specifically.

BY MR. COLLINS:

Q. And over on the third column, R.J. Reynolds, do you see that?

A. Yes, I do.

Q. If you look in the right-hand column under No. 3 --

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

A. Yes.

Q. -- it states, quote, In charge of the research activities of the committee will be a scientist of unimpeccable integrity and national repute, correct?

A. No. "Unimpeachable."

Q. Sorry. "Unimpeachable."

Do you see that?

A. Yes.

Q. Would it be reasonable to presume that what this document is saying, that is, here, America, we'll be the scientists for you; we will fund the research; and Public, you can rely upon what we find out and divulge to you?

MR. GUSTAFSON: Objection. This is a document that was not authored by this witness. It requires speculation as to what this document means. I think he's testified he hadn't even seen this document before.

THE WITNESS: I have not seen this document before. I don't know who wrote it. I don't know when they wrote it. And I don't know who the target audience was.

BY MR. COLLINS:

Q. The target audience, sir, is right at

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the top, "cigarette smokers." It's plain as day.
MR. GUSTAFSON: Counsel, that's your testimony. And fortunately you're not here providing it for the record. This witness has said he doesn't know anything about the document. There's no foundation for these questions.
BY MR. COLLINS:
Q. The author, sir, is right in the middle of the page. It says, "Tobacco Institute Research Committee," currently known as CTR?
MR. GUSTAFSON: Move to strike the testimony of Plaintiffs' Counsel.
BY MR. COLLINS:
Q. You've testified that you know -- you've heard of CTR, correct?
A. This is CTR?
Q. Yes, sir.
A. This is -- oh, this is -- okay.
Q. And this document was produced in the early 50s.
A. Okay.
Q. Okay?
A. (Nods head affirmatively.)
Q. Now, if you look at the very beginning paragraph --

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

A. Yes.
Q. -- it will explain to you what this is in response to.
A. Okay.
Q. It says, "Recent reports on experiments with mice have given wide publicity to the theory that cigarette smoking is in some way linked with lung cancer in human beings."
A. Yes.
Q. Okay? In response to that -- those studies, the Tobacco Industry Research Committee, now CTR, stated under 1, 2, and 3, this is what we're pledging to do to you -- for you, America.
One of those is that, under 3, that they're going to hire a committee of which a scientist of unimpeachable integrity and national repute will head that?
A. I see.
Q. Do you think that any reports published by the CTR can be reasonably relied upon by the public?
MR. GUSTAFSON: Objection to the form of the question. It's unintelligible. It's completely without any context, requires speculation.
THE WITNESS: Well, if the scientist has

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unimpeachable integrity and is of national repute, he's clearly a reliable source. And so people should not feel uncomfortable about trusting what he says.

BY MR. COLLINS:

Q. So you would agree that it would be reasonable for the general public to rely upon any type of statement or research that this -- that TIRC or CTR now has done?

MR. GUSTAFSON: Objection. Requires speculation. There's no specificity about what type of research we're talking about, what the research results are. It's completely without context, and it's unintelligible.

THE WITNESS: I mean, the guy that has this unimpeachable integrity, clearly, he could accidentally make mistakes. There are all kinds of things that could go wrong. He's got a reputation going in is all that this sentence says to me.

BY MR. COLLINS:

Q. Do you see under No. 1, please. It states, "We are pledging aid and assistance" to research -- "to the research effort into all phases of tobacco use and health."

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

A. Yes, I see that.

Q. "This joint financial aid will, of course, be in addition to what is already being contributed by the individual companies."

A. I see that.

Q. "All phases of tobacco use and health."

A. (Nods head affirmatively.)

Q. If you take that -- and permit me to ask you to harken back to the gentlemen's agreement, and assuming that gentlemen's agreement was in place and the Tobacco Industry said, we are not going to do intact animal studies, do you believe that's contradictory to what was promised here?

MR. GUSTAFSON: I'm going to object. The premise of your question is completely without any foundation whatsoever. The reality is this witness has said he's conducted biological research. So your hypothetical has no basis in reality; in fact, it is contradicted by the witness's sworn testimony here today.

Object to the form of the question.

MR. COLLINS: That's all you need to say.

MR. GUSTAFSON: Well --

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MR. COLLINS: All right. The man is testifying.

MR. GUSTAFSON: So, you've been playing --

MR. COLLINS: Let him --

MR. GUSTAFSON: You've been playing fast and loose.

MR. COLLINS: Then just make your objections.

MR. GUSTAFSON: No.

MR. COLLINS: It's plain and simple.

MR. GUSTAFSON: No, you're doing your best to twist this record --

MR. COLLINS: I --

MR. GUSTAFSON: -- and torture these documents and twist this guy's testimony from the day -- from the minute this deposition began. I'm not going to put up with it.

You want to ask him what he did, what he knows, fine. But I'm not going to sit here and -- with my mouth shut and let you deliberately torture the record in this case. I won't permit it.

MR. COLLINS: Would you --

MR. GUSTAFSON: You're giving him hypotheticals which are contradicted by his own testimony. That's improper.

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MR. COLLINS: Would you permit me to put my case on?

MR. GUSTAFSON: Yes.

MR. COLLINS: Okay.

MR. GUSTAFSON: If you'll do it in a fair --

MR. COLLINS: Will you do that?

MR. GUSTAFSON: If you will do it in a fair manner and you will not try to torture the language, the clear meaning of documents, and you won't try to twist his testimony around in an improper way. If you want to ask legitimate, fair, properly phrased questions, fine. We won't have any problems, but you're not doing that.

BY MR. COLLINS:

Q. Doctor, do you understand my question?

A. Could you say it again, please?

Q. Under No. 1 --

A. Yes.

Q. -- the TIRC is pledging to the American people --

A. Yes.

Q. -- that they will aid and assist the research efforts in all phases of tobacco use and health?

A. (Nods head affirmatively.)

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Q. Okay?
A. Yes.
Q. And I want you to remember when we were talking about the gentlemen's agreement; do you remember that?
A. There were two.
Q. I'm just talking about the one that was talked about, that the tobacco companies would not do in-house intact biomedical research?
A. Right.
Q. Do you remember that?
MR. GUSTAFSON: The one which the witness said he had no knowledge of whatsoever.
BY MR. COLLINS:
Q. Do you remember that?
A. Yes. I remember that that was a hypothetical, that --
Q. Correct.
A. Right.
Q. Do you think those two promises or those two statements contradict each other? It is a simple question, sir.
MR. GUSTAFSON: Objection to the form of the question.
THE WITNESS: I'm not sure. This is a

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statement from when I was two, and the other one was a statement from when I was four. I just can't see how I can have any knowledge on this that's relevant here that --.

BY MR. COLLINS:

Q. I'm not asking about knowledge. I'm just asking whether you think it contradicts each other. This statement says, We are going to aid and assist in all phases of tobacco use. The other statement says, We are not going to do in-house intact biomedical research.

MR. GUSTAFSON: Objection.

MR. COLLINS: My question is: Do those two statements contradict each other?

MR. GUSTAFSON: Objection. You're getting argumentative with the witness. This is a document he did not author. It was issued in 1954 when the witness was a wee toddler.

BY MR. COLLINS:

Q. Do you have an answer, doctor?

MR. GUSTAFSON: How does he know what this document means?

THE WITNESS: I'm very confused.

MR. GUSTAFSON: Object to the form of the objection.

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

BY MR. COLLINS:

Q. What is your confusion?

A. As to the hypothetical of whether or not there was a gentlemen's agreement. I don't know whether there ever was such a thing.

BY MR. COLLINS:

Q. I didn't ask you that. I asked you to assume that there was. Do you remember? I asked you -- do you recall us having that discussion?

A. Yes. So I am now assuming that the companies, these companies, have agreed to not do biological research on intact animals?

Q. Animals?

MR. GUSTAFSON: When you say the gentlemen's agreement was entered into, The question is vague and ambiguous as to the timing of all this.

THE WITNESS: So we have a gentlemen's agreement not to do this. And then you're now saying that this statement, We are pledging aid and assistance in the research effort into all phases of tobacco use and health. These statements don't appear to jibe together. I agree.

BY MR. COLLINS:

Q. Thank you. That's all I asked. It's

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very simple?

MR. GUSTAFSON: Yeah. It's simple if you're willing to completely torture the factual record of this case. This is just ludicrous.

BY MR. COLLINS:

Q. Doctor, do you think that R.J. Reynolds has a duty to the public to find out whether cigarette smoking causes diseases?

MR. GUSTAFSON: Objection. This witness is not a lawyer. He's not here to state legal opinions. It's well beyond his area of expertise or training or knowledge, and requires gross speculation on his part.

THE WITNESS: The word "duty" means different things to different people. I understand it has a legal meaning, and I just don't understand the question. And I don't think I can answer it.

BY MR. COLLINS:

Q. Do you think that Lorillard or R.J. Reynolds has an obligation to the public to find out whether cigarette smoking causes diseases?

MR. GUSTAFSON: Same objection.

THE WITNESS: I think that tobacco companies have -- are aware of the various claims that are

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being made by the public health authorities; and that we, certainly, the two that I have worked for, have made a variety of attempts to address the various public health concerns that have been made. So the fact that they're doing active research in these areas is showing a concern, yes.

BY MR. COLLINS:

Q. Do you think that that obligation, for lack of a better word, to the public outweighs either R.J. Reynolds or Lorillard's goal to increase the value of its shares for its shareholders?

MR. GUSTAFSON: I object. You're mischaracterizing his testimony, because the premise of your question presumes that he said there was an obligation. That's not what he testified to. Otherwise, I'm objecting to the form of the question.

THE WITNESS: Well, I didn't say obligation. I said that we were concerned about the public health controversy. We've made attempts to address the various aspects of it as it has changed. I don't know whether I could answer the question as to whether that is more important than shareholder value. I honestly don't know the

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answer to that.

BY MR. COLLINS:

Q. Thank you.

Is there a continuing obligation as a scientist to find out whether smoking causes disease?

MR. GUSTAFSON: Objection. Again, you're calling for a legal conclusion.

THE WITNESS: I think that the scientific knowledge on the links between cigarette smoking and diseases is incomplete and doesn't converge to a simple opinion; and that, therefore, scientists are working on ways to understand more of the -- why this -- the data doesn't converge together.

BY MR. COLLINS:

Q. Do you know whether currently R.J. Reynolds and Lorillard scientists are in fact doing that?

MR. GUSTAFSON: Object to the form. The question is vague and ambiguous.

THE WITNESS: I can't speak for what the R.J. Reynolds Tobacco Company is doing.

The Lorillard Company's research department is addressing a number of changes that could be made in cigarette design that might be

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relevant to understanding more of the mixed-up data sets.

BY MR. COLLINS:

Q. Specifically, Doctor, is Lorillard Tobacco Company doing any type of research to determine whether or not smoking causes lung cancer?

MR. GUSTAFSON: Object to the form.

THE WITNESS: No. The -- I think we have enough data out there that shows these epidemiological studies are there. They are producing these high-risk factors. I don't think that there would be any purpose in performing another epidemiological study.

What we have done over the years is attempt to change our product to reduce certain components including, as I discussed several times, the tar yields. That is our philosophy that is a better way to use our limited resources than to go to yet another epidemiology study.

BY MR. COLLINS:

Q. Doctor, are you saying that the epidemioligical studies are sufficient in your mind as to whether smoking causes lung cancer?

A. No. I'm saying that epidemiology

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cannot prove causation.

Q. Okay.

A. But it can generate hypotheses. And from those hypotheses, you might be able to generate an experiment -- there are many experiments you can do. These are the animal studies, these are the mechanistic studies, these are some of the chemical studies that can be done and indeed have been done by Lorillard and others.

Q. What research is Lorillard Tobacco doing that will prove causation, sir, not epidemiologically?

MR. GUSTAFSON: Object to the form.

BY MR. COLLINS:

Q. I want to know what research is being done that will show causation or not show causation?

MR. GUSTAFSON: Object to the form of the question.

THE WITNESS: If I knew the results of the research going in, I wouldn't need to do the research. We are doing a number of research projects. I don't think any directly relate to the causation argument.

BY MR. COLLINS:

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Q. Thank you.
Is there a moral obligation as a scientist to find c t whether the tobacco industry products kill thousands of people and studies have shown this.
MR. GUSTAFSON: Object to the form of the question. And I object and move to strike the preface of your question. There's no foundation for it.
THE WITNESS: I don't think that the epidemiological studies that you're referring to have shown whether cigarette smoking kills people. It's a statistical association. That's the second part of your question. I didn't catch the first part.
BY MR. COLLINS:
Q. Do you think there's a moral obligation for the scientists to find that out?
MR. GUSTAFSON: Object to the form.
THE WITNESS: I have a lot of problems with some of these questions on morals. I'm a scientist. I have my own scientific morals, but morals of society as a whole, of companies as a whole, I have a lot of difficulty with. I just don't know whether that's the right thing to do or

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not.

BY MR. COLLINS:

Q. Under your set of morals or morality, do you think scientists have an obligation to find out whether smoking causes disease?

MR. GUSTAFSON: Object to the form.

THE WITNESS: Well, if we knew how cigarettes cause lung cancer, assuming as you have all along that they do, if we knew that, how does cigarette smoke cause lung cancer, if we knew that, we would know the compound that does it. And if we knew the compound that does it or mixture or chemical entities, I think that we at Lorillard would have the technology to take that compound out.

That is a complicated answer, but that would be my answer as a scientist.

BY MR. COLLINS:

Q. Do you know at any time, while you were employed by RJR, whether or not RJR employed a medical doctor?

A. Yes.

Q. And the name of that individual?

A. His name was Ehmann, E-H-M-A-N-N.

Q. Do you know if he was employed to evaluate the link between smoking and disease?

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MR. GUSTAFSON: Object to the form.

THE WITNESS: I don't know. He was the head of the research and development department.

BY MR. COLLINS:

Q. So he worked on R&D?

A. He was the head of R&D.

Q. Do you know if Lorillard employs a medical doctor who evaluates the link between smoking and disease?

A. No, we do not.

Q. Do you believe that's something Lorillard should do?

MR. GUSTAFSON: Object to form.

THE WITNESS: No. I think that all the medical doctors would be able to do touay would be to generate yet another epidemioligical study.

(Plaintiffs' Exhibit No. 20 was marked for identification and is annexed hereto.)

BY MR. COLLINS:

Q. Doctor, do you believe that while you were working at RJR Topacco, the company ever withheld important information concerning the health effects of its own products?

MR. GUSTAFSON: Objection to form.

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THE WITNESS: I don't know whether they had any such information, whether they withheld it. I have no personal knowledge of that area.

BY MR. COLLINS:

Q. Do you have any idea as -- same question but in regards to Lorillard?

MR. GUSTAFSON: Object to form.

THE WITNESS: Again, I give you the same answer.

BY MR. COLLINS:

Q. Do you think if either R.J. Reynolds or Lorillard had information that its products were dangerous, that it would certainly disclose that information, regardless of what the other tobacco companies did?

MR. GUSTAFSON: Objection. It requires speculation, is completely without context in terms of what information specifically you're talking about, what time frame, et cetera, et cetera.

THE WITNESS: I don't know what the individual companies would do if they had that information. It's a hypothetical. I just don't know what the answer would be.

BY MR. COLLINS:

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Q. Do you think that they should disclose information that they have about their products being dangerous --

MR. GUSTAFSON: Objection to form.

BY MR. COLLINS:

Q. -- if they in fact have that information?

A. And if their products are dangerous. There's a lot of information required there, a lot of speculation that I'm not sure I can make.

BY MR. COLLINS:

Q. Doctor, do you agree that when a company makes a public statement, it hopes the public will hear that statement?

MR. GUSTAFSON: Objection. Requires speculation as to what the company may hope or not hope for.

THE WITNESS: Presumably when you make a public statement, you want the public to read it.

BY MR. COLLINS:

Q. Thank you. Do you believe that this applies to statements a company makes about the dangers of its own products?

MR. GUSTAFSON: Objection to form.

THE WITNESS: I think if you make a public

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statement, you want the public to read it, yes, whatever the statement is.
BY MR. COLLINS:
Q. So the public has a right to rely that when a company makes a statement concerning the dangers of its own product, the company is going to be telling the truth, correct?
MR. GUSTAFSON: Objection. Mischaracterizes his testimony; otherwise, object to the form.
THE WITNESS: Well, clearly, you -- as a company, you don't want to be saying things that aren't true in a public forum.
BY MR. COLLINS:
Q. Are you generally aware that R.J. Reynolds has publicly disputed the fact that cigarette smoking causes disease?
MR. GUSTAFSON: I object to the form of the question. There's no foundation for your testimony, Counsel. And I'm going to move to strike it.
THE WITNESS: I don't know whether R.J. Reynolds has made any such statements or not.
BY MR. COLLINS:
Q. Are you aware if Lorillard has made any such statements?

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A.   I don't know whether we've made any such statements or not.

Q.   Assume for me that either R.J. Reynolds or Lorillard has made statements, public statements, disputing the fact that smoking causes disease. When a representative of either one of those companies makes that statements, would it be reasonable for the people who hear that statement to rely upon it?

MR. GUSTAFSON: Objection to form.

THE WITNESS: Well, like the discussion we had before, they could rely on that spokesperson; they could rely on somebody else; they have got a number of things they could rely upon if they went -- form their own opinion.

BY MR. COLLINS:

Q.   Sir, do you think there's anybody else out there in this country that knows more about its own product than the tobacco companies?

MR. GUSTAFSON: Objection to form. Requires speculation.

THE WITNESS: No. I think we know a great deal about our -- about our product.

BY MR. COLLINS:

Q.   You would agree with me that the

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tobacco companies are the best source of knowledge as to what their tobacco products produce, what they have in them?

MR. GUSTAFSON: Objection to form.

THE WITNESS: No. I think we know how to make cigarettes. We know what's in them better than anybody else. What happens after that, I don't think we necessarily know more or less than anybody else.

BY MR. COLLINS:

Q. So if a tobacco company says, Our product does not cause disease, the general public should not rely upon that statement --

MR. GUSTAFSON: Objection.

BY MR. COLLINS:

Q. -- is that what you're telling me?

MR. GUSTAFSON: Objection. That mischaracterizes his testimony.

MR. LATHAM: Argumentative, too.

THE WITNESS: No. I don't think I said that. I think I said that -- I forgot what I did say.

BY MR. COLLINS:

Q. Let me rephrase it.

I'm asking whether if a representative

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of a tobacco company says -- makes a public statement that smoking does not cause disease, that the general public should rely upon that?

MR. GUSTAFSON: Objection to form.

THE WITNESS: They could rely on his view, her view, or anybody else's views and come to their own opinions. They should not just take one side of the story.

BY MR. COLLINS:

Q. Doctor, with regard to product advertising, would you expect a consumer company that you are involved with currently, Lorillard, to advertise things that were truthful about their products?

A. (No response.)

Q. I'm sorry. Do you think that the consumer should rely upon those advertisements?

MR. GUSTAFSON: Objection to form.

THE WITNESS: I think we should, in our advertising, be sure that we are telling the truth in our advertisements, yes.

MR. GUSTAFSON: Chris, when you get to a good stopping point, I'd like to take just a short break.

MR. COLLINS: Ready?

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MR. GUSTAFSON: Okay.

VIDEOTAPE OPERATOR: Off the record at 2:05.

(Recess was taken.)

VIDEOTAPE OPERATOR: This begins Tape 3. We're on the record at 2:12.

BY MR. COLLINS:

Q. Doctor, if I can refer you back to the Frank statement --

A. (Nods head affirmativly.)

Q. -- in the first column?

A. Yes.

Q. I believe it's two -- three paragraphs up from the bottom of that column, "We accept."

A. Yes.

Q. Can you read that for me?

A. "We accept an interest in people's health as a basic responsibility paramount to every other consideration in our business."

BY MR. COLLINS:

Q. Now, that's what the tobacco industry is saying to the American people, correct?

MR. GUSTAFSON: Objection. Requires speculation.

THE WITNESS: That's what they said in 1952 or whatever the date was on this.

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BY MR. COLLINS:
Q. I believe it was 1954.
A. '54.
Q. Do you believe that that premise still holds stay, that above everything, people's health is paramount to every other consideration for the tobacco companies?
MR. GUSTAFSON: Objection to form.
THE WITNESS: Clearly standards change, but this would certainly be one of the very highest ones that I personally would put on it. It may not be the highest, it may well be the highest. I haven't really thought about it a great deal.
BY MR. COLLINS:
Q. In our previous discussion just right before the break, when we were talking about how there's kind of two sides of this story, one side saying smoking causes cancer, one side saying there's really no proof. Do you recall that?
THE WITNESS: Yes.
MR. GUSTAFSON: I'm going to object to your mischaracterizing the testimony.
BY MR. COLLINS:
Q. And I think your testimony was a person should listen to both sides and then make a

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decision; is that correct?

A. I think we were using slightly different words. I was saying that scientists are presenting different views, that the public can take views from both sides of those scientists, from a variety of other sources. We have information exchanged like we never had before. The public has innumerable number of ways of obtaining information and forming their own opinions.

That's what I think I said.

Q. Okay. If you would agree with me, there's basically only two sides: The side that says smoking does cause disease and the side that says smoking does not cause disease. Would you agree with that?

A. No, I would not. There's a side that says that smoking does cause disease. And there's a side that I personally put myself on that says it may, it may not. We don't know.

BY MR. COLLINS:

Q. Okay. So, basically, your opinion would be that there's still an open controversy as to whether smoking does or does not cause disease?

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MR. GUSTAFSON: Objection to form.

THE WITNESS: I think the reason for the controversy is because we have these epidemioligical studies that we've talked about a great deal; and these studies compare more things than just smoking. They're comparing life-style differences. And when you stake studies from throughout the world comparing Group A with Group B and saying the only difference between these two groups is smoking, that's wrong. They have a large number of differences between these two populations. And to simply say, Ah, the difference and, therefore, the disease incidence is only due to cigarette smoking is also wrong.

These studies can only indicate trends that can then be subject to scientific investigation.

That's why epidemiology cannot prove causation, because there may be many other factors hidden in there between these two groups that could also be linked statistically with smoking. And you can't tease them out because epidemiology doesn't allow you to do that.

What you have to do is take the hypothesize, the null hypothesis, we say in

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science, and say, yes, let's assume it does, let's go off and prove it. And you do that in a population where the only variable is smoking. That's difficult to do in humans, I would say impossible to do.

So you do it in animals. You take groups of animals, and you say, Group A, you get smoking; and all of the other variables, Group B, you get non-smoking and all the other variables. You then make that comparison. And, as I said earlier, there are innumerable studies. And you don't get the finding that you do get from epidemiology.

That's why we have a nonconvergence of data, and that's why I stand up and say I don't know.

BY MR. COLLINS:

Q. Doctor, do you think that scientists at Lorillard have accepted the hypothesis that smoking does cause cancers?

MR. GUSTAFSON: Objection. Requires speculation.

THE WITNESS: No. I think as one of those scientists, I've given you a view that probably most of the others would agree to: We don't

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know. We know the epidemiology links, we know of the negative animal studies.

And as I mentioned earlier, I think that for true causation to be able to use the phrase "cause," you must know -- and many other scientists would agree -- you must know the mechanism. We don't know the mechanism. A variety of mechanisms have been put forward and just haven't been found to be correct.

BY MR. COLLINS:

Q. I think you just testified that, as a scientist, you accept that hypothesis that smoking causes disease and, therefore, tried to prove it or disprove it. Is that what you said?

A. I'm sorry --

MR. GUSTAFSON: Objection. Mischaracterizes his testimony completely.

THE WITNESS: I'm sorry. I think I said the exact opposite.

I'm saying that I think that Lorillard scientists, including myself, accept the results of the epidemiological studies and say there's something there.

BY MR. COLLINS:

Q. Okay.

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A. But is it smoking? Is it life-style? Is it green vegetables? What is it? We don't know. We go to the animal studies, and we don't get the same results. That's what I'm saying.
Q. I'm done with that exhibit.
Now, that document we just read, the Frank statement, do you recall -- if you need to look at it, you're more than welcome to --
MR. GUSTAFSON: It's too late now. No more questions on this document.
THE WITNESS: I have it in front of me, yes.
Q. -- where it basically states that this committee will be established and the industry will then fund this research committee to do smoking and health-related research?
A. I see that, yes.
Q. Do you know a C.H. Judge, J-U-D-G-E?
A. I don't know him. I've seen the name, I think. I'm not sure if I do or not.
Q. Do you have any knowledge as to whether the CTR, in this case, when it was originally established TIRC, was established for public relations purposes rather than smoking and health purposes?
MR. GUSTAFSON: Object to the form.

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THE WITNESS: I have no knowledge as to exactly why it was formed, other than these statements here.

BY MR. COLLINS:

Q. Sir, I'm going to show you a Lorillard document dated June 24, 1974. It's from Dr. Spears, who you know, correct --

A. Yes.

Q. -- to a C.H. Judge?

A. Yes.

Q. Have you ever seen this document before?

A. No, I have not.

Q. If you'd turn to page 3, please, third paragraph.

A. "From what has been said"?

Q. I'm sorry. Fourth paragraph, "Historically."

A. "Historically."

Q. Could you do me a favor and read down to the word "strategy," which is about midway through that paragraph?

Sorry. Read it out loud.

A. Oh, aloud.

"Historically, the joint industry

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funded smoking and health research programs have not been selected against specific scientific goals, but rather for various purposes, such as public relations, political relations, position for litigation, et cetera. Thus, it seems obvious that reviews of such programs for scientific relevance and merit in the smoking and health field are not likely to produce high ratings.

In general, these programs have provided some buffer to public and political attack of the industry, as well as background for litigious strategy."

Q. Sir, do you think that -- strike that.

I'm going to have you look at the Frank statement again and reference the third paragraph up from the bottom on the left column, "We accept."

A. Yes.

Q. Now, with what you just read, do you think that directly contradicts the statement by the tobacco industry, that they accept the interest of the people s health and it's paramount to every other consideration of their business?

MR. GUSTAFSON: I object. There's no foundation. There's no testimony in this case, in

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this deposition, with respect to this document, "this document" being, I guess, what you will mark as Exhibit 21, this one written by Dr. Spears.

The witness has already told you he has no knowledge essentially, or very little knowledge, about CTR, so this requires speculation.

I'm going to just simply object to the form of the question.

MR. COLLINS: Well, could you simply object to the form of the question? That's very simple, isn't it?

MR. GUSTAFSON: Touche'.

BY MR. COLLINS:

Q. Doctor, I'm not asking you about whether you understand this document or the Frank statement, sir. I'm asking you to read the paragraph. I'm asking you to understand that what you just read versus what is stated in the Frank statement, do you think those two statements contradict each other?

A. They don't appear to go together, I agree.

Q. So they contradict each other?

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A. I think taking this paragraph and this sentence in whatever sequence of age, whatever else, they don't appear to go together; I agree.

Q. Would you agree that based on this 1974 document by Dr. Spears, that in this instance, Lorillard's understanding of what the CTR was is that it was not in the public interest; it was rather for public relations, political relations, litigation purposes?

MR. GUSTAFSON: I'm going to object. It requires speculation.

You're taking two sentences out of a document that he's not been given an opportunity to read. We don't know what other documents exist that were authored by Dr. Spears on this subject. The witness has inadequate foundation to respond to these questions.

THE WITNESS: I mean, I --

BY MR. COLLINS:

Q. Doctor, it's right there in black and white, starting with the word "obvious."

A. Yeah, I read the phrase. I don't know what Spears was talking about almost -- a significant number of years ago. I don't know what he's talking about when he's saying this.

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Is this -- I need to read the whole document. I can't just sort of take this paragraph in the middle. I don't know what he's saying in the whole thing.

Do you want me to read the whole thing?

Q. If that's what you need to do, sir. But I'm just talking about his statement, "Historically, the joint industry," which is what you have there next to you, the Frank statement, the CTR, that's the joint industry.

And basically Dr. Spears is saying that the research programs have not been selected for any scientific -- "specific scientific goals, but rather for various purposes, such as public relations, political relations, and positions for litigation."

A. I'm having a problem, because there's a 20-year difference between this statement and this statement (indicating), and a 20-year difference between this statement and today. And I'm trying to put them all together, and I'm finding it extremely difficult to do so.

BY MR. COLLINS:

Q. Sir, this statement, the Frank

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statement, is intact today, it's enforced today, the CTR is still in business, the purpose of the CTR is still --

MR. GUSTAFSON: Objection.

BY MR. COLLINS:

Q. -- what the tobacco industry says it is.

MR. GUSTAFSON: Objection. Counsel, you're harassing the witness. I'm objecting to your testimony. You're making legal conclusion without any foundation whatsoever. And I'm moving to strike your testimony.

And don't be argumentative with the witness. If you want to ask him questions, fine. He's giving you truthful, responsive answers to your questions. But don't harass the witness.

THE WITNESS: Part of what I'm saying in my concern there is that you're asking me to take 1998 views on 1954 statements; and that's sometimes very difficult to do, almost always very difficult to do. I'm not an historian.

Q. Sir, what I'm saying to you is that this view --

A. Let me just finish. I'm not an historian. I can't go back in time and say what

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these people were addressing, what were their concerns 40, 50 years ago and what Spears was trying to say 20 years in between. It just seems a huge historical exercise; and I'm a scientist.

BY MR. COLLINS:

Q. Are you finished?

A. I have.

Q. Sir, this statement is enforced today, 1998, as of today?

MR. GUSTAFSON: Objection. You're getting argumentative with the witness.

BY MR. COLLINS:

Q. I'm not talking about what the statement says back in 1954, because this same pledge to the American people has been made since 1954, and it's still the pledge the tobacco industry is making to the American people as of today.

MR. GUSTAFSON: Objection. There's no foundation for your testimony. I'm moving to strike it. The witness has given you an answer to your question. Let's move on.

BY MR. COLLINS:

Q. Now, my question is --

MR. GUSTAFSON: You might try the novel

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concept asking him something about he knows, what work he did, or what documents he authored instead of asking about documents that were authored 40-plus years ago, authored by somebody else, about which he has no knowledge. We're wasting our time here.

BY MR. COLLINS:

Q. My question is, Doctor: Do you think that public relations, political relations, and litigation purposes have anything to do with scientific research?

MR. GUSTAFSON: Objection to form.

THE WITNESS: Again, I don't know what we're looking at. The document in 1974 that uses, for example, the phrase, "public relations," that may have meant something completely different to Spears in '74 than it does to Coggins in '98. I can't make that.

(Plaintiffs' Exhibit No. 21 was marked for identification and is annexed hereto.)

(Discussion off the record.)

BY MR. COLLINS:

Q. Thank you, sir.

Doctor, I'm going to show you a

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Philip Morris document that was produced by Lorillard. It's a March 31, 1980, document, from Mr. Seligman to Dr. Spears of Lorillard.

Do you see that?

A. Yes.

Q. Have you ever seen this document?

A. No, I have not.

Q. Do you know who J.C. Bowling is?

A. No.

Q. Could you read this document?

A. (Complies.)

Q. I'd like you to pay particular attention to the last page, Doctor.

A. Yes. I haven't got there yet. Okay.

Q. Now, if you look on the first page, Doctor, it states, "Mr. J.C. Bowling of our New York office asked that I send you our recommendations" -- "our" being Philip Morris -- "for the industry research which we prepared last year."

Do you see that?

A. Yes.

Q. In this instance, the industry research is the CTR, sir?

A. Okay.

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MR. GUSTAFSON: I'm going to object to Counsel's testimony. You don't know what "our" means. There's no indication on this document of what "our" means. There's no indication what "industry research" means.

I'm going to move to strike your testimony. There's no foundation to support it.

BY MR. COLLINS:

Q. At the bottom of that paragraph, Doctor, Mr. Seligman states, "I have added a list of three subjects which I feel should be avoided."

A. Uh-huh.

Q. Would you turn to page 3, sir.

A. (Indicating.)

Q. The first subject to be avoided is "developing new tests for carcinogenicity."

The second subject to be avoided is the "attempt to relate human disease to smoking."

My question to you, sir, is: If there's an allegation against Lorillard that its product causes human disease, why would a responsible company want to avoid any research that would relate to human disease and smoking?

MR. GUSTAFSON: Objection. Again, requires speculation. This is a document apparently

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authored by representatives of Philip Morris. This document was not authorized by this witness, and it was not sent to this witness. There is no foundation that this witness knows anything about this document. Requires speculation.

THE WITNESS: I have no idea why he wrote this, what he was thinking of, whether this was actually his own personal view, whether this was followed through. You know, I just don't know what I can say about this document.

BY MR. COLLINS:

Q. Could you tell me, if there's an allegation, as there is in this case, against Lorillard, that smoking causes disease in humans, do you think it's responsible for a tobacco company to avoid subjects, research, that would relate human disease to smoking?

MR. GUSTAFSON: Object to the form.

THE WITNESS: I don't know whether they did avoid it.

BY MR. COLLINS:

Q. This is just -- I'm not saying whether they did or not. I'm asking you, do you think it's responsible for the company to avoid such subjects?

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MR. GUSTAFSON: Object to the form of the question. Requires speculation, inadequate context.

THE WITNESS: No. If we have allegations made against us that our product produces disease, I think we have every indication in the world to study that to form our own opinions.

MR. COLLINS: Thank you.

Mark that exhibit.

(Plaintiffs' Exhibit No. 22 was marked for identification and is annexed hereto.)

BY MR. COLLINS:

Q. Doctor, at any point in your career, either at R.J. Reynolds or while at Battelle or currently at Lorillard, has any attorney controlled your scientific research in any manner?

MR. GUSTAFSON: Object to form.

THE WITNESS: To the extent I'm not sure what you mean by "controlled," I can certainly say that the attorney involvement in the research that I have performed in those three institutions has been minimal, if not nonexistent.

Q. By "controlled," I mean they dictate

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to you what you research.

A. (Nods head affirmatively.)

Q. Whether you publish it or not?

A. (Nods head affirmatively.)

Q. If at the end of your research you write a paper, they dictate to you how to write that and where to publish it?

A. Absolutely. None of those examples have ever occurred to me.

Q. Do you know if any attorneys have ever controlled any type of research from the CTR?

MR. GUSTAFSON: Objection to form.

THE WITNESS: I've had such minor involvement with CTR that I really can't answer your question. I don't know.

BY MR. COLLINS:

Q. This (indicating) is a Philip Morris document, November 13th, 1978.

With respect to the exception of the first page, Doctor, it's the same document as the last document you just read.

A. Yeah.

Q. So if you'd just read the first page.

MR. GUSTAFSON: Chris, I'm just going to note for the record that the last two pages of this

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document do not have any handwritten revisions on them, which the prior document did. So I want to correct your statement that this is not an exact copy. The last two pages are not an exact copy of the last -- of the prior document --

BY MR. COLLINS:

Q. Are you done, Doctor?

MR. GUSTAFSON: -- just so the record is clear.

THE WITNESS: Not quite. Okay.

BY MR. COLLINS:

Q. Doctor, taking what you've read from the Frank statement about the public interest and that's paramount to anything in regards to what the tobacco industry does --

A. Yes.

Q. -- would you read No. 1 for me, please?

A. "The future plans and programs should be relevant to the needs of the industry."

Q. Does that contradict the Frank statement paragraph that states that the public's interest is paramount to the tobacco industry's interest?

MR. GUSTAFSON: Objection. This document

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clearly, explicitly indicates these are merely recommendations or some thoughts by this person. There's no indication on this document that any of these things were ever put in place. It requires -- this is, again, a document not authorized by this witness. It requires speculation.

BY MR. COLLINS:

Q. The document -- excuse me -- Doctor, again, this is just whether those two statements contradict each other?

A. Well, these are just recommendations. I don't know whether they went through.

But clearly I would have thought that Statement No. 1 was, as a given, that if it's the industry that's spending the money, we need to have it relevant to the needs of that industry. And if those needs are different, then the programs and plans should change.

Q. Different than the needs of the public?

A. No. They may well be the same.

Q. Assume that they're different. This document, the Frank statement, states that the people's health is paramount to everything that

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the tobacco industry does?

MR. GUSTAFSON: Objection. I'm not going to have this witness assuming facts about a document he did not author, of which he knows nothing. It's a fundamentally improper question. You know it, everybody here knows it. And this witness should not be put in a position of making assumptions which have no basis whatsoever. It requires gross speculation.

THE WITNESS: I'm finding it very difficult to make some of these assumptions. I really am. I just cannot live in a 1954 environment and put 1998 interpretations on it. It's very difficult to do.

BY MR. COLLINS:

Q. Doctor, I've explained to you that this document, this statement made by the tobacco industry, is in force today in 1998.

MR. LATHAM: Object. It's improper as to format. It's not a speech.

MR. GUSTAFSON: Look, Chris --

BY MR. COLLINS:

Q. Do you understand that sir?

MR. GUSTAFSON: Yeah, if you're going to get argumentative --

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BY MR. COLLINS:

Q. You do you not understand that?

MR. GUSTAFSON: Hold on. Just wait a minute. Just wait a minute here.

If you're going to get argumentative with this witness, Chris, then we'll just finish this deposition, and you guys can go back to your office, and we'll just cancel this thing, because this is completely improper.

If you want to ask this guy, Dr. Coggins, about research he did, about information that he's aware of, then fine. But I'm not going to allow you to badger this witness, as you've already done today, and harass him and get argumentative with him. The question has been asked and answered. He doesn't know anything about it. Let's move on.

If you're intent on badgering this witness, we'll just call this thing off. I'll instruct him not to answer these questions.

MR. COLLINS: Is that what you're doing right now?

MR. GUSTAFSON: What's your question? Are you going to ask the same question again? Yes, I will instruct him not to answer.

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BY MR. COLLINS:

Q. Doctor, I'm going to ask the same question: The Fran.. statement here states that the "people's health is paramount to every other consideration in our business," "our business," being the tobacco industry.

Under No. 1, it states, "Future plans and programs should be relevant" to the tobacco industry -- sorry -- "to needs of the industry."

Do those two statements contradict each other?

MR. GUSTAFSON: Objection. Requires speculation. I otherwise object to the form of question.

Dr. Coggins, I'm going to give you one opportunity to answer his question to the very best of your abilities, and then we're going to move on. And if he wants to come back and ask the same question again, then I'll instruct you not to answer at that time.

THE WITNESS: I don't see a great dichotomy between these statements.

MR. COLLINS: Thank you.

BY MR. COLLINS:

Q. Have you ever had any type of research

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funded by contract?

A. Yes. All of the work that I performed in Geneva was under contract.

Q. And generally, who reserves the rights to control the publications? Would that be you, the scientist, or the party you're contracting with?

A. I can't remember how we did it. Clearly, there were publications. I can't remember exactly who initiated it and who -- who had the control.

Q. Do you believe that if in any of the situations where you were under contract, that if your results turned out detrimental to the individual with whom you've contracted, that they should have the right to control your publication?

MR. GUSTAFSON: Object to the form of the question. It's horribly without appropriate specificity and context.

THE WITNESS: I think in general, the data are owned by the sponsor unless there's a specific statement in the contract. And I'm certainly not an expert in that area. And I certainly don't understand "detrimental."

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But certainly one of the statements I've heard people making when talking about publishing results is that the work is said to be done by somebody else and published elsewhere. So quite often there's an earnest to go ahead and to publish.

BY MR. COLLINS:

Q. Doctor, do you ever perform scientific research where you carefully control the process to have a required result?

MR. GUSTAFSON: Objection to the form of the question. It's unintelligible.

THE WITNESS: You mean an engineered design?

BY MR. COLLINS:

Q. Right.

A. That wouldn't be research.

Q. Would not be research?

A. Right.

Q. Can I have you look at the other document, this one (indicating).

A. This one (indicating)?

Q. No. 5, "The long-term scientific program should be carefully planned such that the results obtained should not be able to harm the industry."

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Do you see that?

A. Yes.

Q. Do you agi e with that -- do you agree that that is the way scientific research should be undertaken?

MR. GUSTAFSON: Objection. Again, requires speculation by this witness as to what is meant by this document that he did not author and was authored by someone else over 20 years ago.

THE WITNESS: Yes. This statement written 20 years ago I don't think is particularly relevant, certainly to me as a scientist in 1998. This would not be doing research. This would be making work.

BY MR. COLLINS:

Q. I guess my question, sir, is whether you believe that this is the way scientific research should be undertaken?

MR. GUSTAFSON: Objection. Asked and answered. Again, requires speculation about what this author means.

BY MR. COLLINS:

Q. Today, sir, just today.

MR. GUSTAFSON: Object to form.

THE WITNESS: This would not be research.

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This would be just making work, not research at all.

BY MR. COLLINS:

Q. Thank you.

Doctor, do you know who Mr. Shinn is of Shook, Hardy & Bacon?

A. Spelling, please?

Q. Bill Shinn, S-H-I-N-N.

A. No.

Q. Do you have any idea what the Special Projects are, sir?

A. Like some earlier statements, I've heard the two words put together, but I don't know what they are.

Q. Do you have any idea what the Ad Hoc Committee is?

A. I'm sorry? The --

Q. Ad Hoc Committee.

A. No, I don't.

Q. Do you have any idea what the Committee of Counsel is?

A. I don't know, but it sounds like a bunch of lawyers.

Q. Doctor, have you ever been at a meeting where you were told that no handwritten

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notes were to be taken?

MR. GUSTAFSON: I'm going to object to the extent your question would get into communications with counsel.

Other than that, I'll allow you to answer the question.

THE WITNESS: My question sic) would be that, excluding the attorney-client, I can't think of any occasion where that would be the case.

(Plaintiffs' Exhibit No. 23 was marked for identification and is annexed hereto.)

BY MR. COLLINS:

Q. Have you ever seen this document before, sir?

A. No, I have not.

Q. Do you know who Mr. Tucker is of R.J. Reynolds?

A. No.

Q. Do see do you see Dr. Spears' name there --

A. Yes.

Q. -- vice president of Lorillard.

Could you read this, sir, in its entirety, to yourself?

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A. The whole thing?

Q. Yes, until you're satisfied with it.

A. Sure.

MR. GUSTAFSON: Counsel, is this document among the documents that were produced to Congressman Bliley to which the tobacco companies claimed privilege? Do you know?

MR. COLLINS: I believe it was produced by the State of Minnesota. At least that's my understanding where we obtained it from.

MR. GUSTAFSON: Produced, you mean, from the Minnesota Depository?

MR. COLLINS: From the Minnesota case trial.

MR. GUSTAFSON: Okay.

BY MR. COLLINS: Specifically, off --

MR. GUSTAFSON: Well --

MR. REILLY: It could still be --

MR. COLLINS: Specifically, off the Blue Cross/Blue Shield Internet site.

MR. GUSTAFSON: This is not a document that I know came from the files of Lorillard, at least to my understanding. But to the extent that this document contains attorney-client privilege or work product information, I'm going to state an objection on the record, that certainly those

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privileges and protections are not being waived.

MR. LATHAM: Can we take a one-minute break?

MR. GUSTAFSON: Can we take a two-minute break?

VIDEOTAPE OPERATOR: Off record at 2:48.

(Brief recess.)

(Discussion off the record.)

VIDEOTAPE OPERATOR: Back on the record at 2:50.

MR. COLLINS: There are a couple of documents that are in dispute as to whether they are privileged or not.

Plaintiffs' position is that they are not privileged, based on the fact that they were introduced in the Minnesota State trial and these documents were released by Senator -- or Congressman Bliley and they were obtained off the Internet.

My proposition to Defense Counsel is we go ahead with the questioning -- we go ahead with the questioning, based on the fact that the judge is going to determine the standing of these documents, whether privileged or not.

Then rather than not ask these questions and have Dr. Coggins brought back if the

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judge does decide that they're not privileged, we go ahead, ask the questions, have it sealed, and Plaintiff will be bound by the Judge's decision.

If the Judge decides that they're not privileged, those questions are obviously stricken.

MR. GUSTAFSON: On behalf of Lorillard and on behalf of Defendants generally, my understanding, Chris, is that your statement that these documents were introduced into evidence, I believe, is an incorrect factual statement, No. 1.

No. 2, we do still contend and vigorously assert that these documents are still protected by the attorney-client privilege and the attorney work product doctrine.

As you correctly state, I believe in Ironworkers, where the parties are in the process right now of talking about a briefing schedule and appropriate protocol for the Judge to rule on whether in fact the privilege and work product protection is still attached to these documents.

So at the present time, until the Judge rules that these documents are not so protected, we're going to continue to assert our privilege and our work product protection. And

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I'm going to instruct the witness not to answer any questions relating to these documents, so --

MR. COLLINS: That's okay.

MR. GUSTAFSON: So I won't agree to your proposal.

MR. COLLINS: Is that the same for R.J. Reynolds?

MR. LATHAM: R.J. Reynolds takes the same position that Lorillard takes in this case.

(Discussion off the record.)

BY MR. COLLINS:

Q. Doctor, I'm going to show you a document. I'll wait to hear from your attorneys as to whether I'm permitted to question you on this?

MR. GUSTAFSON: We're going to assert the same objection, as I previously stated, to the effect the documents are protected by the attorney-client privilege and work product doctrine, and on that basis instruct the witness not to answer.

MR. COLLINS: I'm going to get one in here, Doctor.

Just for the record, as far as the previous document entitled, "Notes and Meetings of

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Committee of General Counsel," held on September 10, 1991, looking at Bates No. 2000743 through '750, it's my recollection that this document was released in the Florida State trial by the companies as part of the settlement.

MR. GUSTAFSON: Are you saying, Chris, that, to your knowledge, the companies are no longer claiming privilege? I don't understand what you're saying.

MR. COLLINS: It's my recollection that --

MR. REILLY: There were five or six documents that were released right on -- at the time of the settlement. And we'll withhold -- reserve moving on that, but I believe that one, that document might be one of them.

MR. GUSTAFSON: That was voluntarily released by the tobacco companies?

MR. COLLINS: Voluntarily released by the tobacco companies, yes.

MR. GUSTAFSON: I think what we ought to do -- let's -- I think what we ought to do is -- I mean, what I need to do to protect my client is find out what you're telling me is accurate or not. I'm not suggesting that you're deliberately trying to mislead me, but I need to get some

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comfort as to whether or not we've voluntarily produced these documents or not.

And I can do that. I mean, maybe we can go off record real quick.

If you can give me all the document numbers you have in mind you want to ask him about that we think are privileged, then I'll do my best to get, run the traps on that, get answers.

And if there's any of that in fact we have agreed to voluntarily produce and not claim privilege, then I'm happy to have you ask questions of the witness about those documents, but I just can't without running those traps first permit you to ask questions about it without -- I'm just concerned that I'm going to inadvertently waive the privilege.

MR. COLLINS: Well, the only -- the two documents that we know for a fact are going to be the Jones Day and the Brubaker document.

MR. GUSTAFSON: I'm not sure I know what the Brubaker document is. I know the Jones Day document. I'm not sure I know what the Brew Baker document is.

But I mean, if you want to give us the document numbers of -- I know we're going to claim

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privileges to the Jones Day document. There's no -- okay, there's no question apparently as to both of those documents we're going to claim privilege. If there are any others like this document (indicating) --

MR. COLLINS: Gentleman, you know, why don't we -- those four documents, we'll have the Judge decide. We'll just leave it at that.

MR. GUSTAFSON: That's fine with me.

I'm just saying without a little bit more time, I just can't get a comfort level, Chris, as to what the situation is.

MR. COLLINS: You've got a good attorney there, sir. Not leading you down the blind path, not selling you out.

MR. GUSTAFSON: When they start complimenting your Counsel, you've got to really, really watch 'em, because that next question is going to be a doozy. It always makes me very suspicious when I start getting complimented.

BY MR. COLLINS:

Q. Doctor, have you ever heard of the Scientific Research Liaison Committee?

A. No, I have not.

Q. Doctor, are you part of Lorillard's

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

management currently?

MR. GUSTAFSON: Object to form.

THE WITNESS: Yes. I think as senior vice president, I'm part of Lorillard's management, yes.

BY MR. COLLINS:

Q. Would you be opposed to, in this case, Lorillard's industry future being in the hands of attorneys and having the attorneys make the decisions on what Lorillard does as a company?

MR. GUSTAFSON: Object to the form of the question.

THE WITNESS: It seems to me that the business should be run by the managers of the business and not by legal advisors.

BY MR. COLLINS:

Q. Do you think it would be sound business to have the lawyers control what type of scientific research was done by Lorillard?

MR. GUSTAFSON: Object to the form of the question.

THE WITNESS: I don't know whether it would be sound business or not. It would be poor science.

I would imagine it would be poor

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

business, too

BY MR. COLLINS:

Q. Doctor, this document was produced by Lorillard. It's a 4/21/78, entitled "Scientific Research Liaison Committee."

Since you've worked at Lorillard or -- please -- sorry. Read the document.

A. Okay.

Q. Doctor, do you know, since the time you've worked at Lorillard, if the Lorillard management has ever abdicated the scientific research direction of the industry to the lawyers?

A. To my opinion -- in my opinion, they have not.

Q. Do you have any knowledge as to whether that happened with R.J. Reynolds while you were working at R.J. Reynolds?

A. I don't have that knowledge, no.

Q. Thank you.

MR. GUSTAFSON: What number is that, ma'am?

COURT REPORTER: 24.

(Plaintiffs' Exhibit No. 24 was marked for identification and is annexed hereto.)

BY MR. COLLINS:

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Q. Doctor, what is the Center for Indoor Air Research or the CIAR?
A. CIAR is an organization based in Baltimore, whose task it is to fund basic research in the indoor air quality arena.
Q. Do you know how the CIAR evolved, came about?
A. Yes.
Q. How was that?
A. It was largely through the ideas of Dr. Spears and, I believe, from Dr. Green at R.J. Reynolds.
Q. It wasn't evolved out of an ad hoc CTS advisory group to the Tobacco Institute?
A. I didn't think so.
Q. Is the CIAR independent of the industry?
MR. GUSTAFSON: Object to form.
THE WITNESS: The CIAR receives its entire funding from the industry.
BY MR. COLLINS:
Q. From all of the tobacco companies --
MR. GUSTAFSON: Object to the form.
BY MR. COLLINS:
Q. -- to your knowledge?

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MR. GUSTAFSON: Object to the form. The question is ambiguous by what you mean by all of the tobacco companies.

THE WITNESS: Funding for CIAR is provided by the four U.S. domestic companies.

BY MR. COLLINS:

Q. Are you involved in the CIAR?

A. I am superficially involved, yes.

Q. In what capacity?

A. Currently, I'm acting as an advisor to Dr. Spears, who is one of Lorillard's Board members.

Q. Do you ever attend any of the Board meetings of the CIAR?

A. There are two Boards within the CIAR. There's a scientific Board, which advises the executive director. Then there is the main Board. I've attended several meetings of the latter group.

Q. Are you aware that -- strike that.

Do you know when the CIAR was -- first came into being?

A. 1988.

Q. And if I said that it's October of '84, would that refresh your memory, or are you

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sure that it was '88?

A. I'm sure it was '88, because later this year, later th_s month, we are having the ten-year survival party.

Q. Are you aware that the chairmanship of the CIAR, when it was first established, was held by Donald R. -- Sorry -- Don Holle, of Shook, Hardy & Bacon?

MR. GUSTAFSON: Object to the form of the question. There's no foundation for your testimony, Counselor. I move to strike.

THE WITNESS: No. I'm not aware of that at all.

BY MR. COLLINS:

Q. Are you aware that prior to the formation of CIAR, the research projects that CIAR currently does were funded as CTR special projects through the Committee of Counsel?

MR. GUSTAFSON: Again, I object to your testimony, Counselor. There's no foundation for your testimony. And I move to strike.

THE WITNESS: I was told that the CIAR was completely unrelated in any way to CTR.

BY MR. COLLINS:

Q. And who told you that?

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A. Dr. Spears.
Q. Doctor, do you know what Parsons Technology is?
A. Parsons Technology. That rings a bell, but I can't place it.
Q. Okay. I'll show you a document. And hopefully that will refresh your memory.
A. Oh, yes.
Q. May I ask what you were ordering?
A. This was some personal tax software. And --
Q. Nothing to do with tobacco in any way?
A. Nothing to do with tobacco in any way.
Q. That's my only question, sir.
Doctor, do you believe that it has been shown that smoking is a risk factor for cardiovascular disease?
A. I think cigarette smoking has been shown to be one of a very large number of established risk factors for cardiovascular disease.
Q. Okay. I'm just asking about smoking?
A. Yes.
Q. So your answer is "yes"?
A. Yes.

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Q. Does that hold true for lung cancer?
A. That's right.
Q. Emphysema?
A. I'm really not up to speed with the emphysema literature, so I don't know for emphysema.
Q. How about chronic obstructive pulmonary disease?
A. I think that's largely the same thing as emphysema. There's an overlap in the definitions. I don't know.
Q. How about mouth cancer?
MR. GUSTAFSON: Object to form.
THE WITNESS: Was the question cigarette smoking?
BY MR. COLLINS:
Q. Yes, sir, has been shown to be a risk factor in mouth cancer?
MR. GUSTAFSON: Object to the form.
THE WITNESS: I'm not sure if it has or has not. I don't know.
BY MR. COLLINS:
Q. Do you have any knowledge about throat cancer, whether it's been shown to be a risk factor?

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A. Mouth and throat. I guess I would include those as being the same thing. I don't really know.
Q. Doctor, do you recall writing the Chicago Tribune in early 1994 in reference to McDonald's patrons?
A. No.
Q. (Indicating.)
A. Ah, yes.
Q. Does this document recall your --
A. I remember it now, yes.
Q. Is that your signature at the bottom of this page, sir?
A. Yes, it is.
Q. Is this document something that you would produce in your ordinary course of business?
A. Could I read it?
MR. GUSTAFSON: Object to the form.
BY MR. COLLINS:
Q. Yes, sir.
A. Yes, I've read it.
BY MR. COLLINS:
Q. Is this a document that you would normally produce in your ordinary course of business?

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A. Yes.
Q. Is this your position, or is this the position of R.J. Reyno_ds?
MR. LATHAM: Object to the form.
THE WITNESS: I don't see really a position. Here's my scientific analysis of a recent paper.
BY MR. COLLINS:
Q. And that is that a diet replete with French fries, cheeseburgers, and milk shakes has been shown to be a risk factor for cardiovascular disease?
A. No. The article that I really was referring to -- I'm sorry. You're right -- an article that included saturated fat, yes. Excuse me. Could I backtrack? The article that I reviewed was entitled, "Saturated fat intake and lung cancer risk among non-smoking women in Missouri."
Q. And the statements that you make in this document are in reference to that --
A. Right.
Q. -- report?
A. And also to the article written by Mr. Chapman in the Chicago Tribune.
Q. Do you have an opinion as to whether

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the risk for cardiovascular disease is greater if you smoke or is greater based on a diet of French fries, cheeseburgers, and milk shakes?

MR. GUSTAFSON: Objection. The question lacks appropriate specificity.

THE WITNESS: The point of my letter really was not so much cardiovascular disease as it was lung cancer. The article by Chapman concerned heart disease. And I was referring to the Alavanja article that says that fat intake, an accepted risk factor for cardiovascular disease, is now a risk factor for lung cancer.

BY MR. COLLINS:

Q. Do you think a diet replete with French fries, cheeseburgers, and milk shakes, there's a higher association with getting lung disease as there is with smoking?

A. Yeah.

MR. GUSTAFSON: Object to the form.

THE WITNESS: Yeah. That's really the point of my letter, that halfway down the middle paragraph in this study, "the leading contributors of the dietary saturated fat were hamburgers, cheeseburgers, and meatloaf."

And this effect on a high saturated

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fat diet on total lung cancer was more particularly marked but even more marked when a single type of lung cancer termed adenocarcinoma was considered. Here the relative risk was over 11. I think that's a significant risk factor.

Q. Is it more significant than smoking?

A. The odds ratios for lung cancer in smokers are very variable. I've seen figures as low as 4, and there are figures perhaps as high as 20. So -- there are figures of around 11 as well, so it's difficult to put that into -- give you --

Q. So in some instances it may be that smoking is a higher risk factor than an intake of saturated fat, and in some instances --

A. In some instances the opposite, yes.

Q. -- it may not be.

This was written in 1994. Do you still believe that to be the truth today?

A. I followed the work from Alavanja. He's published a number of other papers since then. They've tried to build on this. I don't think there's that much more information available than was in this paper.

MR. COLLINS: Thank you.

Mark that, please.

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(Plaintiffs' Exhibit No. 26
was marked for identification and is
anne..ed hereto.)

BY MR. COLLINS:

Q. Doctor, do you know who Weisburger Associates are?

A. I think it's Dr. Weisburger and Dr. Weisburger in New York State, yes.

Q. How about Wallace Hayes?

A. We talked of him earlier today.

Q. I'm sorry. How about Johnnie Hayes?

A. Johnnie Hayes was an employee of R.J. Reynolds. May still be for all I know.

Q. And do you know what he does?

A. Today, no.

Q. What did he do while you were employed there?

A. He was -- when I was involved at R.J. Reynolds, he was charged with putting together the Premier monograph.

Q. How about William Y. Rice, Jr.?

A. Bill Rice left Reynolds while I was there. I can't recall exactly what he did.

Q. John H. Reynolds?

A. John Reynolds was a researcher at

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

Reynolds. And he left shortly before I did -- well, I'm not sure if he has left. I don't know where John Reynolds is today.

Q. Do you have any idea what type of research Mr. Reynolds did?

A. Dr. Reynolds was interested in examining the way human beings smoke, the shape of the puff that is taken by smokers.

Q. David J. Doolittle, do you know that person?

A. David is a toxicologist.

Q. Do you know if he still works at R.J. Reynolds?

A. Yes, he does.

Q. Have you worked with him often?

A. We've published several articles together, yes.

Q. Did he work on Premier also?

A. Yes, he did.

Q. Did Mr. Reynolds work on Premier?

A. I'm not sure.

Q. How about Mr. Rice?

A. Again, I'm not sure either.

Q. Either of Hayes, either Wallace or Johnnie?

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

A. Wallace Hayes was the overall coordinator of the toxicology investigations of Premier. And Johnny H~yes, as I say, was the editor of the book.

Q. Do you know Michael Borgerding?

A. Michael Borgerding.

Q. Borgerding?

A. Yes. He's a chemist.

Q. Did he work on Premier?

A. He had a very major role in the analysis of the smoke of Premier.

Q. And Arnold Mosberg?

A. Arnie was another one of the toxicologists.

Q. Worked on Premier?

A. Yes.

Q. Gary Burger?

A. Yes. He was the veterinary pathologist.

Q. And he also worked on Premier?

A. Working on Premier.

Q. Do you know what the Weisburger Associates do?

MR. GUSTAFSON: Object to the form.

THE WITNESS: I think they are both retired

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from the American Health Foundation and are now consultants.

E/ MR. COLLINS:

Q. Consultants in regards to what?

A. I think they were both heavily into nutrition.

Q. Doctor, do you recall meeting in 1987 held in Elmsford, New York, between John Weisburger and staff of the RJR?

A. I didn't think it was Elmhurst. I thought it was -- I remember a meeting with Mr. -- Dr. Weisburger.

Q. Elmsford.

A. I remember a meeting, yes.

Q. Do you recall what that meeting was about?

A. Yes. We made a presentation on our findings with the Premier cigarette.

Q. Do you recall any discussion in regards to the view of the problems associated with the use of the standard cigarette product -- sorry -- the standard smoking product in relation to the risk for coronary heart disease --

MR. GUSTAFSON: Object to the form.

BY MR. COLLINS:

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Q. -- being discussed at this meeting?
MR. GUSTAFSON: Objection to form.
THE WITNESS: I don't recall that conversation, no.
BY MR. COLLINS:
Q. Do you recall discussing any problems associated with the use of standard smoking products in the relationship to cancer --
MR. GUSTAFSON: Objection to form.
BY MR. COLLINS:
Q. -- being discussed at this meeting?
A. I don't recall.
Q. How about emphysema?
MR. GUSTAFSON: Same objection.
THE WITNESS: I don't recall.
BY MR. COLLINS:
Q. Any discussion regarding related problems in the respiratory tract?
MR. GUSTAFSON: Objection to form.
THE WITNESS: No.
BY MR. COLLINS:
Q. Doctor, this will be just fairly quick. I just wonder if this --
A. Sure.
Q. -- if this refreshes any of your

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memory as in regards to any of those topics being discussed?
A. Absolutely, yes.
Q. You can go ahead and read it then if it does.
A. Okay.
Q. This refreshes your memory --
A. Yes.
Q. -- as to what was discussed?
A. Yes.
Q. Could you tell me what was discussed in regards to emphysema?
MR. GUSTAFSON: Objection to form.
THE WITNESS: I think the third paragraph down really reflects the epidemioligical associations in smokers with coronary heart disease, specific types of cancer, and emphysema. I think that's what the writer was talking about. I don't know who wrote it.
BY MR. COLLINS:
Q. Nor do I. But you were at this meeting, correct?
A. Absolutely.
Q. And all these topics were all discussed in regard to epidemioligical studies?

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

Excuse me.

A. As I recall, yes.

Q. Does the last sentence of that paragraph or the last part of that paragraph refresh your memory as to what the purpose of Premier was?

A. No. I think this is a different way of stating what I stated this morning of the aims of simplifying the chemistry, simplifying the biology. And I think the author pretty well comes to that same conclusion in the last page.

Q. If you look at the paragraph just below that on page 1, "The toxicological studies aim to provide the evidence needed to underwrite safety claims associated with Alpha Product."

A. Uh-huh.

Q. Did you do those studies, you personally?

MR. LATHAM: Object to the form of the question.

THE WITNESS: I did the inhalation studies that are referred to further on, yes.

By the time this was written, in '87, I don't think all of the testimony had been completed.

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BY MR. COLLINS:

Q. Did you provide any of the toxicological studies that were needed to underwrite the safety claims associated with the Alpha Product?

MR. LATHAM: Object to the form of the question.

THE WITNESS: I think it's the other way around. I provided the evidence needed -- I provided evidence, toxicological studies. And those were taken by other groups of people and made into whatever it was they made. I just performed the toxicology studies.

BY MR. COLLINS:

Q. Do you have any idea what these "safety claims," what that was in regards to, as stated here?

A. I don't know what they were. And I don't know who writes about safety claims associated with Alpha Product.

Q. So your research was not in any way based on any safety claims --

A. No.

Q. -- that had ever been associated?

A. I did the toxicology studies, and that

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was basically it.

Q. Do you know if any of the other individua_s, any ot..er coxicologists chat were involved, did their research involve helping obtain the evidence needed to underwrite safety claims of Premier -- I'm sorry --

A. No.

Q. -- the Alpha Product?

A. No, I think that this group of people here were the group with the, perhaps, exception of Rice, because I really can't remember what he did, were the group of people that worked on various prototypes of Premier and performed the toxicological and human studies of various prototypes of Premier.

Q. How many years did you work on Premier, sir?

A. It would be a guess. I didn't keep an accurate notebook. 5, 6?

Q. And at no time while working on Premier had you ever heard of any safety claims associated with the --

A. No.

Q. -- Alpha Product or Premier?

MR. GUSTAFSON: Object to form.

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THE WITNESS: No. Excuse me. No. We -- we -- this group here just did the toxicological studies and injectea the data.

MR. COLLINS: Thank you.

(Plaintiffs' Exhibit No. 27 was marked for identification and is annexed hereto.)

BY MR. COLLINS:

Q. Doctor, do you know Helmet Wakham?

A. Helmet Wakham? I know the name. I don't think I ever met him.

Q. How about a C.H. Goldsmith?

A. No.

Q. How about a Dr. R. Fagan?

A. No.

Q. Do you have any opinion as to whether smoking by expectant mothers produce smaller babies?

A. I have virtually no knowledge on maternal aspects of smoking. I -- not an area I don't know anything about at all.

Q. Do you recall the Surgeon General reporting that a mother who smokes while pregnant may tend to have smaller babies?

A. No. I recall -- I think it's one of

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the circulating warnings, but I -- that's the end of my knowledge on reproductive toxicology.

Q. If Lorillard, while you've worked at Lorillard, did research on whether smoking causes expectant mothers to have smaller babies, and they found that to be true, do you think they should publish that information?

MR. GUSTAFSON: Objection to form.

THE WITNESS: Again, there's a lot of ifs and hypotheticals in there. I don't know, whether, A, we would ever do that work; B, what the results would ever be; and, C, whether we would ever get it published. I just don't know what the answers to those hypotheticals would be.

BY MR. COLLINS:

Q. Are you saying that you cannot assume for me that Lorillard has done research on whether smoking causes expectant mothers to have smaller babies; and that if you found that to be true, that you would or would not publish that? You can't assume that if the research has found to be true, that you would do that?

MR. GUSTAFSON: Objection to the form of the question; without adequate context, and requires speculation.

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THE WITNESS: I'm not sure why I would do the work. If the Surgeon General has made these statements, expectant mothers should, following his guidelines -- shouldn't smoke. But this is not an area that I feel at all knowledgeable in.
BY MR. COLLINS:
Q. So if the Surgeon General says that smoking causes disease, the public should rely upon that and not smoke?
MR. GUSTAFSON: Objection to form.
THE WITNESS: No. I'm knowledgeable in the area of lung disease and to a certain extent of cardiovascular disease where the Surgeon General -- and as we discussed this morning and to a certain extent this afternoon, looked at the epidemioligical studies and has made a public health jump.
I am not aware of any of the underlying papers on reproductive toxicology. I don't know anything about those, so I can't make that jump. I can't back up any of the science. I'm not a scientist in this area.
BY MR. COLLINS:
Q. If the Surgeon General came to that conclusion and Lorillard came to that conclusion,

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do you think that Lorillard should publish that information, just like the Surgeon General published that information, to warn the public?

MR. GUSTAFSON: Objection to form of the question. It's inadequate context for this hypothetical, and it assumes fact not in evidence.

THE WITNESS: I don't know the answer to that. I think the presence of the warning may already have everybody adequately informed.

BY MR. COLLINS:

Q. Do you think R.J. Reynolds would have an obligation or a duty to report that smoking causes expectant mothers to have lower babies -- sorry -- smaller babies?

MR. GUSTAFSON: Objection to the form of the question.

THE WITNESS: Same answer.

BY MR. COLLINS:

Q. Doctor, I show you a Philip Morris document from 1969. Have you ever been shown this document?

A. No, I have not.

Q. Do you see that first paragraph, first page --

A. Yes.

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

Q. -- "Now we have a study of the effect of smoking in pregnancy which supports previous conclusions that smoking mothers produce smaller babies"?
A. Yes.
Q. Okay. If you would go to the third page, No. 6, "All of the investigations of this type agree that smoking mothers have babies of lower birth weight than non-smoking mothers, and that these lower weight babies are more likely to experience problems later in life."
Do you see that?
A. Uh-huh.
Q. Doctor, if Lorillard had that information available to it, do you think it has an obligation to produce that to the public?
MR. GUSTAFSON: Objection. I mean, the clear -- the face of this document indicates that this information was already present in the literature. And these findings have been published and available to the public at large.
I'm going to object to your question to the form of the question. Assumes facts not in evidence. It's completely inadequate in context, and its hypothetical.

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THE WITNESS: And there's another problem with the classification of smokers and non-smokers as only being differen- as to the smoking status

That's -- it comes back to the epidemioligical problem I discussed earlier. And this is the point that's made here also in Point 6, that smokers and -- the smoking mothers and non-smoking mothers differ very substantially in other aspects and not just smoking. The nutrition is probably quite different in the smoking mothers than in the non-smoking mothers.

And so you cannot, again, assume that the epidemiology can tease out that one factor between the two groups, smoking, and say, This is the reason why there is this lower birth rate. Epidemiology, I don't think can do that.

BY MR. COLLINS:

Q. Doctor, No. 6 specifically states that the investigations of this type agree that smoking mothers have babies of lower birth rate than non-smoking?

A. Yes. But then they go on to say, "Whether the mechanism is that of a 'slight poison'" ...or..."through the reduced appetite of the mother (hence poor nutrition) is yet to be

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decided." That's my point. Smokers have a much poorer nutrition than do non-smokers.

Q. Correct. What do you mean --

A. So maybe the reduced weight of the child, the fetus, is due to the poorer nutrition of the smoking mother compared to the non-smoking mother.

BY MR. COLLINS:

Q. I understand that, sir. But I'm just speaking about smoking.

MR. GUSTAFSON: Objection to the --

THE WITNESS: Well --

MR. GUSTAFSON: Wait. Wait. Wait. Wait. Wait. There's no question pending. If you're going to ask a question, let's have a question.

MR. COLLINS: Are you done?

MR. GUSTAFSON: Yes. What's the question?

MR. COLLINS: I was starting before you objected.

MR. GUSTAFSON: Well, I'm sorry.

MR. COLLINS: That's quite all right.

BY MR. COLLINS:

Q. If Lorillard came to the same conclusion, sir, or at fact while you were working at Reynolds, if Reynolds came to the same

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conclusion, regardless of the diet, that it was smoking that caused mothers to have a lower baby rate -- sorry -- lower birthrate, do you think that either Lorillard or Reynolds should produce that information to the public?

MR. GUSTAFSON: I object to the extent you're mischaracterizing the content of this document. I don't believe that's what this document says. In fact, it says explicitly, that they're not sure what the cause is. You're, here again, mischaracterizing the document.

MR. COLLINS: Thank you for testifying, Counselor.

MR. GUSTAFSON: You're welcome.

BY MR. COLLINS:

Q. Can I have your answer, Doctor?

A. Well, my answer is that if Lorillard or Reynolds Tobacco Company had this information and knew that it was not diet, they have done something much more than an epidemioligical study. And I don't know what that would be; and, therefore, I don't know how you would publish it. So it's a very large hypothetical for me, and I don't know how I would answer it.

Q. One that you cannot comprehend for an

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answer?

A. That's right.

Q. Thank y u.

(Plaintiffs' Exhibit No. 28 was marked for identification and is annexed hereto.)

MR. COLLINS: Off the record.

VIDEOGRAPHER: 3:30 -- off the record at 3:36.

(Brief recess.)

VIDEOTAPE OPERATOR: This begins Tape 4. On the record at 3:46.

BY MR. COLLINS:

Q. Doctor, I'm going to show you a document from R.J. Reynolds. It's from a Dr. Teague, "Survey of Cancer Research with Emphasis Upon Possible Carcinogens from Tobacco."

Do you have that before you?

A. Yes.

Q. If you'd just turn to page 14 --

A. Okay.

Q. -- under Roman Numeral V, "Conclusions" --

A. Yes.

Q. -- it states, "The increased incidence

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

of cancer of the lung in man which has occurred during the last half century is probably due to new or increased" content -- "contact with carcinogenic stimuli. The closely parallel increase in cigarette smoking has led to the suspicion that tobacco smoking is an important etiologic factor in the induction of primary cancer of the lung. Studies of clinical data tend to confirm the relationship between heavy and prolonged tobacco smoking and incidence" of smoking -- I'm sorry -- "of cancer of the lung." Excuse me.

Doctor, does that -- those statements which I just read change your opinion as to whether smoking causes lung cancer?

MR. GUSTAFSON: Objection. This is a document that's over 40 years old this witness did not author. He's not been given an opportunity to review this document in it's entirely.

You're trying to take one sentence apparently out of context. It just requires gross speculation on his part by what is meant by this document.

In addition, at least my copy of the document is so poor, it's -- frankly, I find it

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

difficult to read it. I'm not sure of your reading of that sentence, of those two sentences, was accurate. It appeared to be inaccurate in a couple of instances.

THE WITNESS: I do find it very difficult to read, sir.

BY MR. COLLINS:

Q. So do I, sir, but this is the way the Defendants produced it to us. So, you know, we take what we can get.

A. I think this is just a restatement of some of the epidemioligical studies that were available in 1953. We have a very much different database today in 1998. We have a much better understanding, I think, now of the problems of simply comparing smokers with non-smokers that I don't think Claude Teague had in 1953.

Q. Is there a difference between epidemioligical studies and clinical data?

A. I'm not sure what he means by clinical data here. Clinical data, to me, would be to do a study in smokers beginning today and following them through to see if there is a difference in the incidence of lung cancer. That, to me, would seem to be a very unethical experiment to do, and

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I'm not aware that it's ever been done.

And maybe he's using it -- and this is going back 40-odd years -- in a different way. I think he's -- and, again, guesstimating what it is, he may be still talking about epidemioligical.

Q. Even though it says that the clinical data tends to confirm the relationship between heavy and prolonged tobacco smoking and the incidence of cancer of the lung?

A. (Nods head affirmatively.)

MR. GUSTAFSON: Again, objection. Requires speculation of what this author meant when he wrote this some 40-odd years ago.

BY MR. COLLINS:

Q. You still relate that to the epidemiological studies?

A. I think what he's saying is that the odds ratios in heavy smokers tend to be higher, but I need to read the whole thing through to be certain of that.

Q. It was just that paragraph.

A. Okay.

Q. I just was finding out if that changed your opinion --

A. No.

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Q. -- that nothing would change your opinion?

(Plaintiffs' Exhibit No. 29 was marked for identification and is annexed hereto.)

MR. GUSTAFSON: That was 29, ma'am?

COURT REPORTER: Exhibit 29.

BY MR. COLLINS:

Q. Doctor, do you know what polycyclic hydrocarbon 34 benzopyrene is?

A. Yes, I do.

Q. Is that a cancer-producing compound?

MR. LATHAM: Object to the form of the question.

THE WITNESS: Benzopyrene is a member of the family of the polycyclic -- now you've got me going -- aromatic hydrocarbons, commonly known as PAHs. These compounds in general, in laboratory animals will produce tumors at the site of administration.

BY MR. COLLINS:

Q. Doctor, do you have any knowledge as to how many similar compounds to benzopyrene have been isolated from smoking cigarettes?

MR. GUSTAFSON: Objection to form.

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THE WITNESS: Are you meaning similar in terms of being a PAH or --

EY MR. COLLINS:

Q. Yes, sir.

A. There are several PAHs that have been identified in cigarette smoke, yes.

Q. All of them are carcinogenic --

MR. GUSTAFSON: Object to form.

BY MR. COLLINS:

Q. -- to your knowledge?

MR. GUSTAFSON: The term "carcinogenic" is undefined without context.

THE WITNESS: Yes. The use of the word "carcinogen" on it's own without some other adjectives is, I think, something we can't do.

You really need to define the experimental animal that the test was done in, the dose of the material that was administered, the route of the administration, and then the target organ.

Again, we can't just simply say that a carcinogen is a carcinogen is a carcinogen. So benzopyrene, as I say, when injected subcutaneously in rats and mice does produce tumors at the site of injection. It doesn't do

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other things in other species at other sites, to give an example of what -- the kind of adjectives, I think, you need to add to the word "carcinogen."

BY MR. COLLINS:

Q. Now, you said you believe that seven or eight other compounds have been isolated from smoke?

A. No. I think that there are seven or eight other PAHs in cigarette smoke that have been identified.

Q. Are there similar compounds to a PAH that you're aware of?

MR. GUSTAFSON: Object to form.

THE WITNESS: PAHs are chemical structures that have got a number of benzene rings that are attached together. And these can be three rings, four rings, five rings, six rings. And so the -- there are probably a larger number of compounds when you just consider all of these together.

I think within the range of -- I think P benzopyrene has a five -- five of these rings joined together in a chemical structure, yes; whereas there are others that have two, and, I think, it maybe goes up to six. So there are a series of these chemical families of poly-aromatic

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hydrocarbons.

Q. Doctor, do you have any knowledge as to as far back as 1959, that approximately 60 similar compounds had been isolated from smoking cigarettes?

MR. GUSTAFSON: Object to the form.

THE WITNESS: 60 PAHs? I think I'd be surprised if there were as many as that.

BY MR. COLLINS:

Q. Doctor, do you consider the phrase "health risk" and "health hazard" to mean the same thing?

MR. GUSTAFSON: Objection. Those terms are undefined. It's vague and ambiguous.

THE WITNESS: No. I think "risk" and "hazard" are two different things. I need to think a bit more about it, though.

BY MR. COLLINS:

Q. What do you define "health hazard" as, sir?

A. I think -- and I -- no, this would be guessing. I don't know the exact definitions to be able to define them as a dictionary of the words to give to you today.

Q. You have no definition of "health

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hazard," what that means to you?
A. I have a mental idea of what it is. But it's similar to health risk. And I'm not prepared to act as a dictionary to try and work out the differences. I just don't feel I can do that today.
Q. I'm sorry if I've already asked you this, but do you recall Dr. Rodgman?
A. Yes.
Q. You know who he is?
A. Yes.
Q. How is it you know him again?
A. He was at R.J. Reynolds. And I still see him at scientific meetings although he has retired.
Q. Have you ever spoken with him in regards to cigarette smoke and health hazards or health risks?
MR. GUSTAFSON: Object to form.
THE WITNESS: No. Dr. Rodgman is an analytical chemist, and my discussions with him have largely been on subjects such as methods for analyzing different compounds in smoke.
BY MR. COLLINS:
Q. Doctor, are you aware that as far as

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back as 1962, Dr. Rodgman felt that the amount of evidence accumulated to indict cigarette smoke as a health hazard is overwhelming and that the evidence challenging such an indictment is scant?

MR. GUSTAFSON: Objection. There's no foundation for the testimony of Counsel. I move to strike. Requires speculation.

THE WITNESS: I don't know whether Dr. Rodgman had that opinion then or not.

BY MR. COLLINS:

Q. So your answer is no, you're not aware of that?

A. I just don't know. That's correct.

Q. Doctor, do you know what the mouse house is?

A. I've heard anecdotal stories of the mouse house as being something that existed before my arrival at R.J. Reynolds.

Q. Is your understanding that the mouse house is the same as the biological research division?

A. No. I was part of the biological research division when I arrived at R.J. Reynolds. Prior to that, I've heard anecdotal evidence of something called the mouse

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house.

Q. And what did your -- what is your understanding of what that is?

A. I spoke to people who have worked in it whilst I was at R.J. Reynolds, and they said it was a very -- in their opinion, a very crude, limited attempt to perform toxicology evaluations on cigarette smoke.

Q. Do you know -- did anybody tell you how long the mouse house was in use?

A. No. I think just that it had closed before I arrived.

Q. Did -- who did you speak to about the mouse house?

A. There were a number of different people. One that had very intimate knowledge of it was my boss when I left R.J. Reynolds was Dr. Simmons.

Q. And did he tell you anything other than just that there was a mouse house, and that it was a crude --

A. He said it was -- and this is going back a while, that it was a very crude attempt compared to what I had brought to R.J. Reynolds when I came from Battelle, Geneva.

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Q. Do you know why the mouse house was closed?

A. Dr. Simmons told me that it was largely, in his opinion -- and this is now getting third handed -- they were not performing state-of-the-art work.

Q. Did Dr. Simmons ever convey to you the fact that it was R -- it was Philip Morris that contacted R.J. Reynolds and told them that they were in violation of the gentlemen's agreement and that's why the mouse house was closed?

MR. GUSTAFSON: Objection. There's no foundation whatsoever for that testimony by Counsel. And I move to strike. It requires speculation of this witness.

THE WITNESS: No. Dr. Simmons informed me only of the scientific -- the scientifically limited ability of this laboratory.

BY MR. COLLINS:

Q. Do you know whether or not any emphysema was produced in the mice at that mouse house while it was in use?

A. I think I'm the wrong person to ask that of. Dr. Simmons was the right person.

Q. Do you know an R.D. Carpenter, sir?

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

A. R.D. Carpenter?
Q. Yes, sir.
A. No.
Q. How about L. Weissbecker?
A. Weissbecker?
Q. Yes, sir.
A. No.
Q. How about Dr. Price?
A. I know a Dr. Price.
Q. Did he work for R.J. Reynolds to your knowledge?
A. Not that I know of, no.
Q. This (indicating) is a document dated December 15th, 1969. It's entitled "R.J. Reynolds Biological Research Program."
Do you have that before you?
A. Yes, I do.
Q. Could you read, it, please?
A. Okay.
Q. It states, "I met Dr. Price from R.J. Reynolds at the CTR-USA meeting of December 11 and 12, 1969. He mentioned doing chronic cigarette smoke exposure studies with rats. The animals received up to 500 cigarettes and emphysema was produced."

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

Do you see that?
A. Yes.
Q. Does that refresh your recollection as to whether you were ever told that emphysema was produced at the mouse house?
MR. GUSTAFSON: I object and move to strike the testimony of Counsel. No foundation.
THE WITNESS: No. Your question actually was mentioned mice; but this is rats, but -- okay. It's just a minor thing.
I am not aware of any of this work. I don't know what "500 cigarettes" means. Is that per day or in three years? And I don't know what they mean by emphysema, because it's very difficult to quantify something that is the breakdown of a tissue, which is what emphysema is.
BY MR. COLLINS:
Q. Doctor, if R.J. Reynolds was in possession of this type of information in '69, 1969, do you think they were obligated to provide that information to the public?
MR. GUSTAFSON: Objection to form.
THE WITNESS: Again, I don't know whether they had that information. I'm having an awful lot of the difficulty with these hypotheticals,

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with what they should or should not have done with the data. I'm not sure from this that they had the data.

BY MR. COLLINS:

Q. It says. "Emphysema was produced." It sounds like they had something.

MR. GUSTAFSON: Objection, Counsel..

BY MR. COLLINS:

Q. Do you think that information should have been produced?

MR. GUSTAFSON: I'm going to object to testimony of the Counsel and move to strike. The witness told you he doesn't know anything about this.

THE WITNESS: I know nothing about this.

BY MR. COLLINS:

Q. My question is: Do you think that information should have been produced?

MR. GUSTAFSON: Objection to form. Requires speculation, completely without context.

THE WITNESS: I think the hypothetical is something I just can't go with.

BY MR. COLLINS:

Q. Cannot answer?

A. Right.

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Q. Thank you.

(Plaintiffs' Exhibit No. 30 was m..rked for identification and is annexed hereto.)

BY MR. COLLINS:

Q. Do you know a doctor Richard Kouri, K-O-U-R-I?

A. Yes.

Q. How do you know that person?

A. Dr. Kouri and I met many years ago when he was working with Dr. Carol Henry.

Q. Did you ever do any research with him?

A. No.

Q. Do you consider Dr. Kouri to be a reliable scientist?

MR. GUSTAFSON: Objection to form. Reliable on what?

THE WITNESS: When I met him, it was probably in the '80s. And I really haven't seen any publications since, so I can't judge.

BY MR. COLLINS:

Q. Have you read any of his studies?

A. I really only know of the one article that he co-authored with Dr. Henry.

Q. Do you consider that to be a

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credible -- do you consider that to be credible -- do you consider that to be credible scientific research?

MR. GUSTAFSON: Objection to form.

THE WITNESS: The research contained in that article is good quality, but I have some major problems with some of the statistical analysis of the data in the paper.

BY MR. COLLINS:

- Q. Did you do any research in regards to cultured cells?

A. Have I done any work with cultured cells? No, I have not.

Q. Do you know a Dr. Gardner?

A. I know a Dr. Gardner, yes.

Q. How about a Mr. Finnegan?

A. No.

Q. Doctor, I'm showing you an affidavit produced by Dr. Kouri in the State of Washington case. If you would just read that until you are satisfied?

A. Read the whole thing?

Q. Yes, if you would, please.

A. Okay.

Q. If you would turn to page 2, Doctor,

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No. 12.

A. Could I just point out that this is not the Dr. Gardner that I know. It's a different one.

Q. Thank you very much, sir.

No. 12, sir?

A. Yes.

Q. States, "Mr. Finnegan and Dr. Gardener asked Dr. Henry and myself to include no opinion and little interpretation of data in the Final Report."

A. Uh-huh.

Q. Is that something that is normally -- strike that, Doctor.

In your understanding of how scientific research works, is that something that normally would happen, that individuals who do not do the research would interpret the research and have control over what is said and what is not said?

MR. GUSTAFSON: I'm going to object. There's no foundation that this -- that Dr. Coggins knows anything about the issues addressed in this document. I think it requires him to speculate grossly in terms of responding to your questions.

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Source: https://www.industrydocuments.ucsf.edu/docs/ktxl0001

THE WITNESS: I think part of my answer is given in Point 14, in that the Final Report was to be a mere compilation of data. And that if it's just a compilation of data, then you wouldn't need to include opinion and interpretation.

But the publication that was produced by Drs. Henry and Kouri did indeed have opinion and interpretation, which is the scientific standard.

BY MR. COLLINS:

Q. Did you rely on any part of the Kouri and Henry publication --

MR. GUSTAFSON: Objection to form.

BY MR. COLLINS:

Q. -- in any research that you have done?

MR. GUSTAFSON: Objection to form.

THE WITNESS: Yes. The Kouri and Henry paper is part of the review that I mentioned this morning as one of the papers that I included. It's one of the mouse papers. And made, I think, a critical analysis of that paper.

BY MR. COLLINS:

Q. Did you agree with it, its findings, or disagree with its findings?

MR. GUSTAFSON: Objection to form. It's

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vague and ambiguous as to what findings you are referencing.

THE WITNESS: Well, clearly, the findings are the findings. It's the interpretation and the -- in particular the statistical methodology that was used in the paper that I have problems with. The data, the findings are the findings.

BY MR. COLLINS:

Q. No. 13, sir, would you agree with Dr. Kouri that, as referenced in No. 12, this was an unusual limitation on a scientific report?

MR. GUSTAFSON: Objection. Requires speculation. No foundation.

THE WITNESS: It would be -- if it was a scientific report -- but as I say in Point 14, it really is a compilation of data and not a report.

So I don't really know what --

BY MR. COLLINS:

Q. Well, are you -- sorry.

A. I don't really know what CTR and Henry and all of these people are saying the Final Report was. It may have been a scientific report; it may have been a compilation of data. I can't tell from here.

Q. Do you have any reason not to believe

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Dr. Kouri?
MR. GUSTAFSON: Objection to form. Not believing him on what?
BY MR. COLLINS:
Q. In regards to what he has laid out in this affidavit, sir?
A. No. I have no reason to disbelieve Dr. Kouri, no.
(Plaintiffs' Exhibit No. 31 was marked for identification and is annexed hereto.)
BY MR. COLLINS:
Q. Doctor, this (indicating) is an affidavit from Carol Henry in the State of Washington case.
A. Do you want me to read this?
Q. Yes, sir.
A. Okay.
Q. Do you know Dr. Henry?
A. Yes, I do.
Q. Do you know him well?
A. Her.
Q. Her. Sorry.
A. We've lost contact over the years; but for a while there, I knew her well, yes.

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Q. How long is a while, Doctor?
A. I'm looking at her CV here. I probably haven't seen her for six or eight years
Q. Have you done research with Dr. Henry?
A. No, I have not.
Q. If you would turn to page 3.
A. Okay.
Q. Do you see that at No. 25, Dr. Henry basically states the same thing that Dr. Kouri did in his affidavit, that "the involvement of CTR and its counsel was unusual and intrusive in writing a final report of scientific research requested and approved by the sponsor"?
A. Uh-huh.
Q. Do you find that unusual?
MR. GUSTAFSON: I'm going to object, again, to the testimony of Counsel. There's no foundation for his testimony. I move to strike it.
I also object on grounds of speculation. It's not a document authored by this witness. There's no foundation that he has knowledge regarding these events.
THE WITNESS: I don't know what the final report was, in that it certainly is not the

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publication in the Journal of the National Cancer Institute because they were the authors on that.

I may have been the report that Kouri said was just a compilation of data, or it may have been the CTR book. I don't know what they mean by Final Report of scientific research.

BY MR. COLLINS:

Q. I'm asking whether or not you would find it intrusive if Counsel and CTR were involved in the writing of the final report?

MR. GUSTAFSON: Objection to form.

THE WITNESS: Yes, I would

BY MR. COLLINS:

Q. Would you look at No. 26, "Attorney Finnegan advised Dr. Kouri and me that the final report was not to contain our interpretations or discussion of the results or how the results might relate to humans."

A. Uh-huh.

Q. Do you have any opinion as to whether an attorney should tell you how to write a report of research that you have done?

MR. GUSTAFSON: Objection to form.

THE WITNESS: Yes, I do. I think that final reports that have my name on them should have been

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the results of my writing, not of Counsel or others.

But, again, I'm not sure what the Final Report is, because clearly the article in Section 39, clearly, has two names on them. The authors are Henry and Kouri, and no other names.

BY MR. COLLINS:

Q. If you'd look at No. 28, sir?

A. Yes.

Q. "The results from the long-term experiment showed that 19 of 978 mice got cancer as opposed to 7 out of 651 controls."

A. Yes.

Q. Would that change your opinion, sir, as to whether you believe smoking inhalation causes cancer in mice?

MR. GUSTAFSON: Objection to form.

THE WITNESS: This particular set of data is one of the major points that I make in my analysis of the statistical analysis of this paper, that I don't think -- and I can't remember the exact details -- that the figures of 19 divided by 978 and 7 divided by 651, show exactly the same groups of animals.

I think that there's -- one group is

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animals alive at the end; and one group, I believe, is animals that die during the experiment, clearly groups that scientifically cannot be compared. But I cannot here and now give you the full analysis of that data set; but I did do that in my written analysis of this paper.

BY MR. COLLINS:

Q. And did that analysis change your opinion as to whether smoke inhalation causes cancer in mice?

MR. GUSTAFSON: Objection to form.

THE WITNESS: No. My review article includes this and several other articles. And the conclusion that I came to, having examined this paper and, as we discussed earlier, many others, was that cigarette smoke -- chronic exposures of rats and mice to mainstream smoke does not produce lung tumors.

BY MR. COLLINS:

Q. Do you have any reason not to believe Dr. Henry's --

MR. GUSTAFSON: Objection to form.

BY MR. COLLINS:

Q. -- statement here?

MR. GUSTAFSON: Objection to form.

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THE WITNESS: No. I have no reason to disbelieve Dr. Henry.

BY MR. COLLINS:

Q. Could you turn to page 5, sir, No. 44.

A. Yes.

Q. "I understand that the results of the initial inhalation experiments were used by the tobacco industry experts to support a claim that cigarette smoke has not been shown to be a cause of lung cancer. I strongly disagree with this representation."

Were you an expert, sir, that relied upon this information in forming any opinions in any of the cases you've been in?

MR. GUSTAFSON: Objection to form.

THE WITNESS: I'm sorry. Was I one of the experts referred to in this sentence?

BY MR. COLLINS:

Q. Yes, sir.

A. No, I was not.

MR. COLLINS: Could you mark that.

(Plaintiffs' Exhibit No. 32 was marked for identification and is annexed hereto.)

MR. COLLINS: Doctor, I'm finished.

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THE WITNESS: Thank you very much.

MR. GUSTAFSON: Let's take just a very, very short break, and let me think about whether I need to follow up.

VIDEOTAPE OPERATOR: Off record at 4:25.

(Brief recess.)

VIDEOTAPE OPERATOR: Back on the record at 4:38.

BY MR. COLLINS:

Q. Doctor, in regards to the privileged documents that were objected to today, do you understand that you may have to reappear to testify in regards to questions pertaining to those documents if the Judge in this case so orders those documents are not privileged?

MR. GUSTAFSON: I'm going to object to the extent you're assuming what he may or may not have to do. We'll have to wait and see what happens.

BY MR. COLLINS:

Q. Do you understand the fact that you may have to return?

A. Yes.

MR. COLLINS: Thank you, sir.

MR. GUSTAFSON: I have no questions.

VIDEOTAPE OPERATOR: This concludes the

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deposition at 4:49 P.M.

(TIME NOTED: 4:49 P.M.)

I declare under penalty of perjury under the laws of the State of Ohio that the foregoing is true and correct.

Executed on________________, 19____,
at_________________________,__________________.

____
SIGNATURE OF THE WITNESS

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CERTIFICATE OF REPORTER

STATE OF NORTH CAROLINA)
COUNTY OF MECKLENPU"G)

I, Nancy L. Holloway, the officer before whom the foregoing deposition was taken, do hereby certify that the witness whose testimony appears in the foregoing deposition was duly sworn by me; that the testimony of said witness was taken by me to the best of my ability and thereafter reduced to typewriting under my direction; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this deposition was taken; and further that I am not a relative or employee of any attorney or counsel employed by the parties thereto; nor financially or otherwise interested in the outcome of the action.

NANCY L. HOLLOWAY
Court Reporter and
Notary Public in and for
North Carolina

My commission expires: 10-5-02

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I N D E X

VOLUME I

WEDNESDAY, NOVEMBER 10, 1998

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DEPOSITION EXHIBITS

CHRISTOPHER COGGINS, Ph.D.

NUMBER	DESCRIPTION	IDENTIFIED
1	Letter, 8/30/78	18
2	Memo, 11/25/81	21
3	Letter, 8/27/93	24
4	Ogburn Paper	28
5	Memo, 7/22/80	31
6	Folder, 10/15/87 Project LF Potential	33
7	Letter, 1/10/90	35
8	RJRI Presentation	36
9	Letter, 11/3/77	44
10	Memo, 7/16/76	56

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DEPOSTION EXHIBITS (CONTINUED)

CHRISTOPHER COGGINS, Ph.D.

NUMBER	DESCRIPTION	IDENTIFIED
11	Memo, 9/9/80	63
12	Memo, 9/9/76	80
13	Memo, 7/22/86	110
14	Memo, 3/16/78	141
15	Memo, 1/5/78	146
16	Memo, 11/3/77	157
17	Memo, 12/9/81	168
18	Draft Paper Biological/Consumer Preference	173
19	Paper: Facts About The Smoking Controversy	186

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DEPOSTION EXHIBITS (CONTINUED)

CHRISTOPHER COGGINS, Ph.D.

NUMBER	DESCRIPTION	IDENTIFIED
20	A Frank Statement to Cigarette Smokers	205
21	Memo, 6/24/74	226
22 -	Letter, 3/31/80	230
23	Memo, 11/13/78	241
24	Handwritten Paper Scientific Research Liaison Committee	250
25	Letter, Undated To: Dr. Coggins From: Anna Rawland	--
26	Letter, 3/3/94	260
27	Meeting Notes, 8/21/87	269

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NUMBER	DESCRIPTION	IDENTIFIED
28	Memo, 1/10/69	277
29	Survey of Cancer Research	281
30	Memo, 12/15/69	292
31	Affadavit of Dr. Richard E. Kouri	297
32	Affadavit of Carol Henry	302

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E R R A T A   S H E E T

RE: IRON WORKERS LOCAL UNION NO. 17 INSURANCE FUND AND ITS TRUSTEES, ET AL. VS. PHILIP MORRIS, INC., ET AL.

DEPOSITION OF: CHRISTOPHER COGGINS, Ph.D.

Please read this original deposition with care, and if you find any corrections or changes you wish made, list them by page and line number below. DO NOT WRITE IN THE DEPOSITION ITSELF. Return the deposition to this office after it is signed. We would appreciate your prompt attention to this matter.

To assist you in making any such corrections, please use the form below. If supplemental or additional pages are necessary, please furnish same and attach them to this errata sheet.

PG	Line	Should Read
6,	21	AG case.
7,	25	in the Broin case . . .
12,	18	Janet . . .
27,	22	. . . R.J. Reynolds.
28,	21	. . . Horrigan
33,	25	. . . R.J. Reynolds . . .
43,	14	. . . and training?
47,	5	papers have very . . .
48,	22	. . . prioritizes . . .
75,	7	. . . so, no to the second half.

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85, 17	jar on a chemist's . . .
89, 12	. . . shelf is a drug?
95, 21	. . . . 1953, when I was . . .
105, 3	. . . involve Lippiello . . .
111, 19	. . . component other than that tobacco . . .
117, 9	. . . work and other . . .
118, 14	. . . distilled these . . .
18	inhalation route, do . . .
135, 4	. . . inhalation
136, 7	. . . reference.--Kentucky reference
161, 13	. . . lung cancer, emphysema, . . .
15	. . . linking that
162, 11	I'm sorry. The answer I gave I think that . . .
23	stated, the . . .
164, 3	. . . problem here . . .
8	. . . pad. When you . . .
166, 21	December 9th, 1981 . . .
168, 10	. . . into the record. There's . . .
172, 19	. . . the alleged . . .
178, 20	. . . lung cancer has been . . .
183, 19	I suppose that's his position, . . .
209, 2	. . . statements, no.
7	. . . that statement,
15	want to form their . . .
213, 17	. . . two sides to this . . .

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215, 7	. . . when you take studies . . .
25	hypothesis, the . . .
216, 19	. . . . . have this hypothesis that
20	. . . cause cancer?
229, 2	. . . was not authored by . . .
20	avoid it. This is just . . .
22	I'm not saying . . .
231, 19	With the exception of the
233, 6	authored by . . .
238, 5	. . . there's a request to . . .
241, 7	My answer would . . .
20	Do you see Dr. Spears' name
246, 2	10. 1981, looking . . .
247, 22	. . . what the Brubaker
251, 14	ETS advisory . . .
258, 16	there's a higher risk associated with . . .
266, 15	. . . with the Alpha . . .
24	. . . of the testing had . . .
269, 20	. . . smoking. It's an area I
274, 5	epidemiology problem . . .
282, 13	. . . "carcinogenic" --
283, 21	P benzo(a)pyrene . . .
293, 10	. . . in regards to using
295, 20	. . . And I made, I . . .
299, 14	Would you look at No. 26? "Attorney

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deposition at 4:49 P.M.

(TIME NOTED: 4:49 P.M.)

I declare under penalty of perjury under the laws of the State of Ohio that the foregoing is true and correct.

Executed on January 27, 1999,

at Greensboro, North Carolina.

SIGNATURE OF THE WITNESS

Subscribed and sworn to
before me, a notary public,
this 27th day of January, 1999.

Notary Public

OFFICIAL SEAL
NOTARY PUBLIC-NORTH CAROLINA
COUNTY OF GUILFORD
JEAN M. PRICE
My Commission Expires Aug. 16, 2003

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